

Archive

The Subscription Magazine for Acorn Users

APRIL
'95

April 1995 Vol. 8 N° 7 £2.50

Hardware News – StrongARM

New: CD-ROM Column

New: Keystroke Column

Phone Day – Updating STD Code Utilities

The Engineer Speaks (He's back!!)

Reviews: Animations Packages: EMConvert, PrimeMover, Complete Animator, Arctic, BasicAOF, Bitfolio Graphics, Black Hole 2, CD-Circle, Clicker, Duck Loses His Quack, Dune 2, Flyprint 2.50, Formula Two Thousand, Goldilocks, Heavy Mouseballs, Langdale, Lenses and Light, Logix, Look! Hear!, Mouse in Holland, Lots More Fun & Games, MouseTrap, Network Acorn, Photobase, Picture Builder, Playdays, Sally & Wally, Sleuth 2, VTI Printer Port Sampler.

ncs 

NORWICH COMPUTER SERVICES

Helping Acorn

There's been tremendous support for my suggestions last month about a user-campaign on behalf of Acorn – trying to open the eyes of the blind to the particular strengths of Acorn's computers. (Archive 8.6 p15.)

Many thanks to all those who have sent in articles they have written or have read in various publications. I am building up a portfolio. Thanks too for those who have suggested publications where we might get articles printed. Keep them coming. If people keep hearing the name "Acorn", they may well take a bit of notice and start to say, "Well, it wouldn't harm to at least get a demo and see what they really can do."

StrongARM Stuff

Anyone fancy a 400MHz Risc PC? Well, that's not just fantasising – it's a real possibility within 18 months or so – read my article on page 31 for more details.

Making Archive Better – Part 16!

(OK, I'm exaggerating!) We have plenty of regular columns and reviews but are getting rather short of technical articles again. If you fancy having a go at something, let me know. If you want some ideas for what to write about, please re-read the article in Archive 8.1 p51. Two articles I would particularly like are reviews of Eagle M2 and Sibelius. The former can be as technical as you like, but the latter ought to be from a user's point of view – although it could, of course, end up very musically technical.

That's it from me. Happy reading!

Paul Beverley

Government Health Warning – Reading this could seriously affect your spiritual health.

In last month's God-slot, I spoke about some of the difficulties I had been through and the way (so I believed) that God had given me a verse from the bible to reassure me that things would work out OK! One of my regular God-slot correspondents (whom I shall call Howard) wrote, "...you attribute what happens to God, and I attribute it to natural causes – in this case, Acorn announcing the Risc PC. But would you have been happy to attribute the opposite to God – i.e. no action, and your business going slowly down the pan as a result?"

Well, Howard, that's not an easy one to answer. I know the theoretical answer – that God is in control and he allows things to happen – both good and bad. God does not bring evil on people but he transforms evil and brings good out of it – like a beautiful flower growing in a dung heap!

But you asked whether I would be *happy* to attribute the opposite to God. Well, I don't know how I would have reacted, because he did rescue the business and he did rescue me from depression. I can't answer that hypothetical question but I know a young lady who can...

I have a very good friend called Sue who asked us to pray for her last autumn because she had lost the sight in one of her eyes and the other one was going too. (I told Howard about Sue and that we were praying for her healing. I hoped that, when God healed her, he would *have* to sit up and take notice of God!)

Unfortunately, God has not yet healed Sue although, thankfully, her sight is not getting any worse. Also, she has been diagnosed as having multiple sclerosis and it is possible that the sight-loss may be stress-related, as she is going through a divorce at the moment. All-in-all, I think you will agree that Sue is a good person to test with Howard's question.

She agreed that it was a difficult question to answer because she is not a theologian but she said to the effect that "I have my up moments and my down moments but through it all, I *know* that God loves me." *P.B.*

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Products Available

• **Acorn C/C++** – Acorn are planning to release their new C/C++ development environment in mid-March. In fact, the package allows programming in C, Assembler, and C++ as well as having a number of supporting tools. C++ support is provided by CFront version 3.0. Also included is the Toolbox replacement to RISCOS_Lib, which allows simple design and implementation of your application's user interface. This can be tested without needing to write any code. The cost is £249.95 inc VAT or £230 through Archive. Owners of Desktop C or Desktop Assembler can buy C/C++ for £205 including carriage from NCS. Send your original Desktop C or Desktop Assembler discs with your order, please.

• **Acorn Risc PC Sound Card** – The 16-bit Sound Card is designed to exploit the digital audio capabilities of VIDC20. It enables the Risc PC to generate near CD-quality sound output via the headphone socket. Previous VIDC1a sound formats are supported in order to provide backwards compatibility with existing RISC OS software, and there is support for the new 16-bit linear and compressed ADPCM formats. The pack includes: a stand alone sample player is provided to play back digital samples; extensions to Replay are included to extend the capabilities of the Replay system to include 16-bit linear ADPCM; a range of quality samples designed to demonstrate the new audio system. The Sound Card costs £59.95 +VAT or £68 through Archive.

• **Big Bang** – From Psycore, the creators of Top Banana, comes this new adventure into "the strange and beautiful". The complete game comes on either a single 1.6Mb disc or two 800Kb discs for £14.95 (inclusive). Please state which type of disc you require and make cheques payable to Psycore when ordering.

• **Calligraph direct drive lasers** – Calligraph have brought the price of an A3 1200 dpi direct drive laser printers down to under £3,000 inc VAT. They now do a cut-down version of the TQ-1200 called the A3-1200 which only costs £2450 +VAT (£2,800 through Archive). The only things that the TQ-1200 has extra to the A3-1200 are a paperfeed unit that takes odd sizes of paper, a high temperature controller that enables the printer to cope with plate-making and the PostScript RIP software (see below). These printers do 8 pages/minute at A4 size and 4 ppm at A3.

• **Calligraph PostScript RIP** – In conjunction with Rapport Ltd, Calligraph have produced a Level 2 PostScript compatible interpreter which will allow any of their direct drive lasers to preview and print PostScript files. If you have a Calligraph Qume or Taxan printer, you can get a version of the software limited to 300 dpi and a new interface card which has various extra features over your old one (which presumably you just throw away). These new cards are also Risc PC compatible. This costs £250 +VAT from Calligraph or £285 through Archive.

Archive Monthly Program Disc Contents

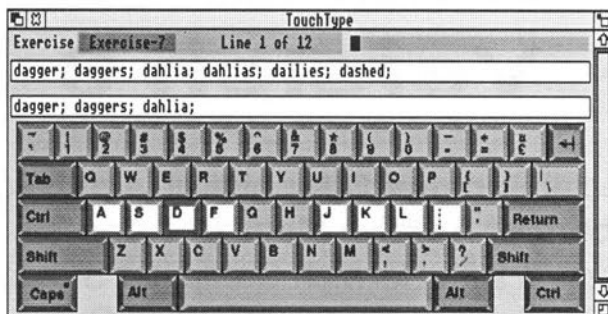
- Files from Gerald Fitton's Column – page 39.
- Sample animations from Christopher Jarman's animator review – page 45.
- Files from Alisdair Jorgensen's Keystroke Column – page 26.
- Files from Keith Hodge's Risc PC Column – page 19.
- Black Hole 2 PD program reviewed by Jochen Konoietzko – page 57.
- Two PhoneDay-ready STD applications from Jim Nottingham – page 17.

N.B. The Perpetual Calendar from Colin Singleton's Puzzle Corner was just squeezed onto last month's disc.

Archive Special Offers

TouchType

We have arranged a special limited offer on TouchType, Iota's typing tutor. It came out very well in a comparative review in Archive done by a Evelyn Grant, herself a professional (human!) typing tutor. The full price is £49.35 but for one month, it is on special offer at £35 through Archive.



"The lessons are well organised, paying special attention to common key combinations, and also giving equal weight to less common keys such as 'q', 'z' and 'x', giving the learner the opportunity to achieve maximum dexterity.

"The keyboard on the screen highlights each letter, indicating 'right' and 'wrong' key depressions, and a 'Hands' window shows which finger you should use.

"There is a clear display showing your rate of progress and

the characters which you need to practice more to achieve a high rate of accuracy.

"The concept of 'dragging' the exercises from the directory may be difficult for learners who have little experience of the desktop but, once mastered, presents few problems.

"I found Touch Type to be very satisfactory as a teaching program, enabling users to progress at their own rate, yet still achieving full potential on the keyboard."

Personal Accounts

We mentioned last month that we had found a few copies of the special offer pack of Personal Accounts and asked if anyone wanted them. They were gone by lunchtime on the day the magazine started to drop on people's doorsteps! We had a word with Apricote Studios and they agreed to repeat the original offer for two more months.

The full price of Personal Accounts is £49.95 and the special price (for Archive subscribers only) is £35. The only difference with this special version is that, to save costs, it will not come in a presentation case. The offer lasts for two months, i.e. until the June issue of Archive is sent out from NCS (mid May). To take advantage of this offer, just send in your order for Personal Accounts to NCS in the normal way but simply do so at £35 instead of £49.95.

In Mick Burrell's review of Personal Accounts (7.11 p65) he said, *"This is a program which has 'developed' through use into an excellent bank account control system. If you tried to find a home or club banking program which was either more capable or easier to use, I doubt you would succeed on either count."*

30% off

Personal Accounts Version 3

As a special **Summer Offer** available **only** to **subscribers of Archive Magazine** Apricote Studios in conjunction with Norwich Computer Services are offering the highly praised application **Personal Accounts v3** at only **£35** inclusive of postage, packing and VAT.

See **Archive** vol. 7 No. 11 page 65 and the August '94 issue of *Archimedes World* for reviews of **Personal Accounts**.

To take advantage of this offer, please send your order **direct** to Norwich Computer Services (**not** to Apricote Studios).

If you would like more information on this product please send a first class stamp and your name and address to Apricote Studios, 2 Purls Bridge Farm, Manea, Cambs, PE15 0ND.

The other Calligraph printers already use the more up-to-date card, so all you need is the RIP software. This, however, has enhanced features appropriate to these more versatile printers and is the same price as the other version – £250 +VAT from Calligraph or £285 through Archive.

Technically, the software offers full implementation of RT halftone screening and TLA screening, giving any combination of screen angle, frequency and spot shape; any resolution supported by your printer including non-square; preview in Draw format (256 grey & 24-bit RGB) and sprite format (16 grey levels up to 150dpi); selectable paper sizes; colour spaces – grey, RGB, CMYK and CIE based; font types 0 (composite), 1 (hinted) and 3 (user definable); JPEG, LZW and CCITTFAX image compression filters and full support for PostScript Resource Management.

- **CDFast** – Eesox have updated their CDFast and NetCDFast packages which give performance increases on CD-ROM drives, stand-alone, and over a network respectively. It has two modes of operation, minimum memory requiring 8Kb to work for an 18-40% performance increase, or enhanced mode requiring 36Kb for a 30-55% increase. The cost is £25 + £2 p&p +VAT (£30 through Archive) for the stand-alone version, and £130 + £2 p&p +VAT (£148 through Archive) for the network/site licence version.

- **Celtic Clipart Disc 3** – The third disc in Glyn Howells' Clipart collection is now available. The discs are £10.99 each, £18.99 for two, or £24.99 for all three (cheques payable to Glyn Howells). All files are in draw format and discs 1 and 3 also contain hints files.

- **Clips Round the Year** – This is the name for the service offered by our own Christopher Jarman who seeks to provide "high quality realistic art, drawn by an artist who uses the computer, not just a computer buff who does some art!" Christopher can do first-rate illustrations to order, or any kind of DTP design back-up you want. If you want a new magazine cover or a set of invoices with your own logo, give him your requirements. He will also do outline fonts designed to order. Prices are by negotiation, but he will often exchange for software.

Send £5 (inc. p&p) for a sample disc containing 18 original Artworks files, plus A/W viewer. Cheques payable to "C. Jarman".

- **Colour Dye-sublimation** – Spacotech have announced a new colour printing system which has continuous tone output at 200dpi. This is not as low as it might sound, especially when you consider that an 800 dpi ink jet printer would only achieve 100dpi at 64 levels of greyscale. In fact, the package, which uses Photodesk as a printer enhancer, gives a virtual resolution of 800 dpi by anti-aliasing, which is only possible on continuous tone printers. The package is currently reduced to £995 +VAT and includes a Primera printer, refill kit, Photodesk and the printer drivers. After the Acorn User Spring show, the price will rise to the normal £1215 +VAT. You can print from other packages, such as Artworks, but you need to have Photodesk since it features as part of the printer driver mechanism.

- **Ethernet Design and Installation Guide** – This book is now available from Acorn, it aims to assist with setting up an Ethernet network. The price is £20 inclusive from Acorn or NCS.

- **Expandable SIMMs** – It is now possible to buy two sizes of SIMM memory cards (4Mb and 16Mb) which are upgradable to twice the size by adding extra chips. The Archive prices are: 4Mb £155 (cf non-upgradable 4Mb at £145), 4-8Mb upgrade pack £155, 16Mb £535 (cf non-upgradable 16Mb at £490), 16-32Mb upgrade pack £535. There is no upgradable 8Mb SIMM, I fear, and the standard 8Mb SIMM has gone up in price to £295.

(When the Risc PC first came out, we talked about the possibility of taking SIMMs in part-exchange when people wanted to upgrade. We have looked into this and regret that we don't feel able to offer this service. We are suggesting that people use our Small Ads column to sell their smaller SIMMs.)

- **Exploring Nature** – (as recommended by Andrew Flowerdew in this month's CD-ROM Column) This CD contains many drawings of flora and fauna, natural life processes, animal behaviour and key natural habitats. An activity-based exploration which will help children towards a greater understanding and appreciation of the plants and animals around them. This is a classroom and

library resource for all primary and middle schools. The RRP was £125 +VAT but this has recently been reduced and it is now available through Archive for £88.

• **Fireworkz Pro** – Colton have now added Recordz, the database, to their Fireworkz suite and have also added some improvements to the other parts of the package. This is now called Fireworkz Pro. The package integrates the Wordz wordprocessor, Resultz spreadsheet and Recordz, and allows documents to contain 'live' spreadsheets and charts, which automatically update when you change the data. The package requires RISC OS 3.1 or later and at least 2Mb of RAM. As Fireworkz Pro and Recordz use Iota Software's DataPower engine, they can access DataPower files and use the DataPower server on a network. Fireworkz (i.e. without Recordz) is still available at £99 +£5 carriage +VAT from Colton (£110 through Archive) and Fireworkz Pro costs £149 +£5 carriage +VAT from Colton (£165 through Archive).

Upgradez: You can upgrade to Fireworkz Pro through Colton from: Wordz – £89, Resultz – £69 PipeDream4 – £99 or PipeDream3 – £124, all plus £5 carriage +VAT.

• **Fly the Atlantic** – This is the first activity pack designed to be used with Topologika's Navigator software and is written by a real airline pilot. Children must follow the flight plan and instructions from Air Traffic Control. The pack is accompanied by a comprehensive booklet with details of bearings, distances and locations of points on the route. There is a special introductory price of £15 +VAT +£2.50 p&p (£19 through Archive), which includes a free site licence.

• **Heavy mouse balls** – Just to make it clear, these heavy-weight mouse balls *only* fit Logitech mice. The Digitec mice used on A310/440 and some of the A400/1 machines have slightly smaller balls, so check that you have got a Logitech mouse before ordering your heavy ball. (The mice that NCS sell at £22 are Logitech/big ball mice!) These mouseballs are available from Oak Consultants for £3 including postage, packing and VAT.

• **Hermes** – Base5 Technical Graphics describe this as "a Desktop Messenger & Interpreter". It has

facilities for text transfer & file interpretation, graphic file loading, activity recorder, window capture, desktop monitor, flexible event timer, automatic paragraph numbering, and features over 300 commands. It is available direct from Base5 for £25 (no VAT).

• **Impressive** – Quantum Software have provided an enhanced button bar for use with Computer Concepts Impression range. It is capable of doing several actions from one mouse click, so that, for example, switching of the text repel feature of a frame can be done with ease. If you are learning to use Impression, you can make Impressive show you how it is creating the desired effect. Example features include Fit to Frame, move frame by any amount, rotate graphic, colour frame, border colour, colour text and so on. The price is £9.95 inclusive from Quantum software or £10 through Archive.

• **i-TV** – This package from Irlam Instruments is a television tuner, teletext decoder and NICAM stereo sound, all on a single width expansion card. It features a crystal controlled, full band tuner, with channel and teletext selection on the desktop. Composite video out is provided for connecting to video digitisers, VCR's etc. to allow single frames or movies from the television signal. External video and stereo audio can be fed in and switched (using software) to the output. Package of hardware and software costs £199 +£3.50 p&p +VAT or £230 through Archive.

• **Laser printers** – We still don't have any direct drive lasers for the Acorn machines other than the Calligraph ones. However, we have added the HP Laserjet 4L to our price list. It is a 300 dpi printer running at 4 pages a minute, has 1Mb RAM and costs £670 inclusive through Archive. We recommend the use of an HP Turbo Driver at £53 to improve speed and flexibility of the printout.

• **Maths Odyssey** – Computer Tutorial Services Ltd have produced an educational adventure which allows children to relate to the historical roots of some of the theorems and ideas they have to learn within the National Curriculum. Maths Odyssey costs £42 +VAT from Computer Tutorial Services.

• **Mentor** – This is a new educational package from Appian Way, and is designed to bring a num-

ber of historical resources to the classroom, including documents, photos, maps, cartoons and diagrams. Each title includes more than 100 sources, both text and picture, with comprehensive indexing facilities. Technical terms can be looked up in the glossary, and each source's background comments can be viewed. Teachers and pupils can add their own sources and notes to personalise the system, adding local sources, for example. The Mentor Edit program can change and re-index existing resources, or create a completely new one. Currently available resources are "The Third Reich", "1914-18: The Western Front" and "Medieval Realms". Each topic disc costs £39.50 +VAT +p&p, and can be upgraded to a site licence for an additional £10 +VAT. Until the end of March, the price is £35 +VAT +p&p. Mentor Edit costs £49.50 for a single user and the site licence is an additional £35 +VAT.

• **OPL Manual for Pocket Book II** – From February, the OPL programming manual for the Pocket Book II will be available through Acorn Direct. Send a cheque for £12.95 (including post and packaging) to Acorn Direct.

• **PD-CD 2** – The Datafile have produced a second CD of PD material for RISC OS machines (including Risc PC). This costs £30 inclusive from The Datafile or £29 through Archive.

• **Repair services** – If you have Acorn equipment that needs repairing, we have two companies here in Norwich that we can recommend. **Avie Electronics** has been advertising fixed-price Acorn repairs for the last few months. So, for example, if you have a dead A3000 then, whatever the fault is, Avie will fix it for you for £39 inc VAT. (Return carriage is £9.99 inc VAT.) See their advert on page 11 for details of the different prices on offer. Avie do not repair printers. **Repair Zone** (alias Ray Maidstone) will repair a wide range of computer and peripheral equipment including "other" computers (I can't bring myself to mention Amigas, Ataris and such-like). They will give a quotation, if required, or work on the basis of "we'll give you a ring if it's going to cost more than (say) thirty quid to fix."

• **Risc PC Extended Warranty** – Acorn have released details of the extended warranty scheme. For an extra 6% of the purchase price of your machine you can extend the on-site warranty to 3

years. The warranty only covers (and you only pay for) the Acorn segments of the system – the base unit, Acorn monitor, mouse and keyboard. Any expansion cards, printers, or non-Acorn monitor is not covered.

• **Scrabble price** – On the last price list, Scrabble was priced at £33. This was a mistake – the correct price was £27 as mentioned in the magazine. If anyone purchased it at £33, please let us know – humble apologies for that!

• **Special Needs Organiser** – This is a PC package which has been ported to the Acorn platform and enables the user to manage the special needs in your school. You can keep track of pupils, provide updates and reminders for staff, and keep your LEA up to date. The price is £64.95 +p&p +VAT for a primary licence, and £80 +p&p +VAT for a secondary licence from PC Business Solutions Ltd.

• **Special Needs Trackerball** – Northwest SEMERC have revised their trackerballs and are adding versions for the PC and Apple Macintosh. Acorn versions are now £89 +VAT, or £109 +VAT if you want the version with a key guard.

• **Text To Braille** – The Dorton IT Support Centre has released version 3 of its text to braille translation program. The program will accept any ASCII text file (including those imported from CD-ROM and the PC) and will output a fully contracted Grade 2 Braille file which can be subsequently sent to a suitable braille embosser. The braille output can be customised for grade changes for example, and French, German and Spanish braille codes are also supported. The price is £30, and an upgrade from version 2 costs £5.

• **Turbo Driver and Laser Direct Spoolers** – This new package from Computer Concepts allows network printing to take advantage of the Turbo Driver or Laser Direct systems, and is compatible with any AUN network including Econet. The package includes a printer cable, spooler software, and a site licence for the printer driver software which may be copied onto as many machines on the network as required. The system works on all RISC OS 3.1 or later computers, although they need at least 2Mb of RAM (4Mb for 600 dpi laser direct printing). The price is £149 +VAT.

Review software received...

We have received review copies of the following:

- Cannon Fodder (g), •CDFast (u), •Hermes (u),
- Talking Stories 2 (e).

e=Education, g=Game, u=Utility.

If you would like to review any of these products, please contact the Archive office. Potential reviewers will need to show that they would use the product in a professional capacity or that they have some knowledge of the particular field.

Help!!!!

• **BBC & Archimedes computers for sale** – It seems as if we are onto something useful that Archive can do here! Following my comments last month, I have had offers of 20+ BBC computers of various types and ages with various add-ons including printers, monitors, modems, etc. What we have decided to do, therefore, is run a BBC recycling plant! What we will do is take delivery of the (donated) computers, get Ray Maidstone to refurbish them (or just check them out if they don't need any work doing on them) and "sell" them to charities and schools. The prices charged for the computers and other equipment will basically just be the cost of a 6-month warranty which Ray will offer.

If anyone is prepared to give us old Archimedes computers (working or not) then we'll take those too for charitable bodies/schools, etc.

However, this will only work if schools and charities actually *want* these computers. So here is a suggested "price list". If you would like to take advantage of these offers, write, ring, fax or email to let us know how many of what sort of equipment you would like.

If you have computers and other equipment, please don't send it to us yet! Let us know exactly what you are offering and we will ask you to send it as and when we have suitable homes for them to go to. Even if the computers aren't actually in full working order, we are still interested – Ray is a "Mr Fixit" par excellence! But please say when you offer us equipment whether or not it actually works. Thanks. **Ed.**

BBC B or B+ + disc drive + colour monitor – £30

Master/Compact+disc drive+colour monitor – £35

Acorn 32bit computer + colour monitor – £50

Printer – £15

These prices do not include carriage and VAT is not applicable because they are going through Repair Zone which is not VAT registered.

• **EMU problems!** – On my A3000, I have a compatibility problem with Cumana's EMU card with SCSI interface (fitted internally) and a Scanlight Junior (fitted to the external slot, with an external 12v supply). When they are both fitted, the computer locks up on switch on, but fitted on their own they work perfectly. They both work together under RISC OS 2. Does anyone know of a solution as neither CC nor Cumana can help, and currently I have to remove the EMU card every time I want to scan anything. **Brian Cocksedge, West Sussex.**

• **Epson paper** – Has anyone discovered an alternative paper for use in the Epson Stylus Color printer for use at 720 dpi? **Barry Thompson on 01332-701969.**

• **Merlin Scribe** – Does anyone know anything about this excellent, if rather quirky, wordprocessor for the BBC B? The manufacturer/distributor was a company called Bucon Ltd, based in Wales. The company seems to be defunct, so does anyone know:

1. If the company still exists in any form?
2. The author of the software? (I have read the software ROM, but it merely says Bucon Ltd.)

I would like to know if the author now writes software for the current 32-bit machines as I feel a wordprocessor/DTP package written by him for a Risc PC would be most interesting. Please phone me on 01702-335760 (day) or 01268-792285 (eves). **Donald Scott, South Benfleet.**

• **Object Basic** – Levens Ltd have released a document with information of what might be included in this package – which is planned to provide a Visual Basic type environment. They would also like feedback on what potential cus-

tomers would like included. More details can be found out directly from Levens.

• **PC schools database to Acorn conversion** – I help my local secondary school by taking PRN files from their PC school admin database and printing laser-labels, etc on Acorn systems. If anyone could benefit from using my dummy files, do contact me. **David Membry** (address below).

• **'Rites of Passage'** – Does anyone know of any clipart, CDs, etc suitable for RE in secondary school, e.g. for 'rites of passage'? (*I know what that means – baptisms, weddings and funerals – my Tim's doing RE at GCSE, so I get quizzed at home! Ed.*) **David Membry** (address below).

• **Statistics with Fireworkz** – I have done some work on a voluntary basis for the local secondary school on a way of using Fireworkz for calculating statistics used in Psychology. Would this be of interest to anyone? I am no statistician but I have found some work-arounds for problems which arose. I would also be keen for someone to check the

details of what I have done. I will send a disc if anyone is interested. I can be contacted at Fritiscombe Lodge, Chillington, Kingsbridge, S. Devon, TQ7 2JQ (01548-580393). **David Membry**.

• **STD finder** – Referring to the plea by Richard Hesketh of Lampeter (Archive 8.6 p24), I have just completed updating a similar program called !STDFinder, which is also PD.

!STDFinder was written by Julian Bristow of the West Midlands area about two years ago. He made provision for upgrading to the new STD codes by providing a file called newcodes, but when I started to use it, I found that some of the data was inaccurate. I tried to get in touch with him, without success, so I have upgraded the application myself.

Regarding the program !Exchange mentioned by Richard Hesketh, I have a copy, "version 1.08 – 12 June 1993 by Julian Samphire"! Are there two versions by different authors or has M.S.Bright changed his name? **Ted Lacey, Southampton.** 

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Lots More Fun & Games

Richard Rymarz

Lots More Fun & Games is from HS Software, a well-established company who have specialised in arcade-style, sometimes wacky, presentation of basic skills associated with the National Curriculum. In my school, we use most of their programs. Even our aged BBC B's can often be seen with a group of children 'playing' one of HS's earlier offerings such as 'Read - Right - Away' or 'Adventurous English'. With the advent of the Archimedes, the company continued a successful policy of using enhanced graphics, digitised pictures and sampled sound to provide a mix of the same thing. So how does their latest offering compare?

The package

Packed in a slim wallet come three discs, each containing one game. They cover a mixture of English and Maths Attainment Targets (English 1, 2, 4 - Maths 2, 4, 5 - pre-Dearing) and each game will just about fit on a 1Mb machine. Brief notes in the pack explain how to maximise memory in tight situations. The games, which are controlled completely by the mouse, feature 256-colour mode 15 graphics, animations digitised from video, and clear sampled speech.

The programs

Dataday - This aims to teach the children the days of the week and months of the year in sequence. Clicking on IHS results in a full screen with the game buttons arranged across the top, twelve pictures depicting the months of the year, seven pictures representing the days of the week along the bottom, and a centre section where all the action happens. There is also a sliding bar showing the time allowed for the game. There are six game variations each having nine skill levels. Sound can be decreased and the speech can be switched off.

The game is easy to understand with a time traveller asking the children to carry out certain tasks involving language based on days and months. An example of a simple task would be, "Find Tuesday". Later, more complex instructions such as, "Find the day before Tuesday", or "What is the fifth day of

the week?", are asked. Success is shown by the traveller running up and down juggling.

Spot the Blot - The aim here is to help children with reversals, visual perception and discrimination skills. The now familiar game buttons are displayed across the top of the screen. Two large pictures of either a beach or parkland are displayed and objects are transposed onto them. Objects are missing or reversed on one of them and the children have to match the pictures. A nice touch is the animated picture of the questioner talking to a gorilla. Success is rewarded with flying ducks and suitably lively music. There is a sliding bar showing the time, and two boxes highlighting the area of the screen near the mouse, making it easier for the children to see.

Gwyn's World - The aim of this game is to find 2D and 3D shapes that hide themselves around Gwyn's house. There is also the option to work out simple fractions and percentages when the shapes have been found. The usual game buttons are found across the bottom of the screen and a cut-away section of Gwyn's house takes up most of the screen. Gwyn is upstairs, electric guitar in hand. There are four common 2D shapes, four common 3D shapes and a colour option. Eight levels of skill give plenty of scope for customising the program for individual children. Instructions are given via the television screen (a nice touch) and the shapes hide themselves around the house - at the harder levels this happens quite quickly. Success is rewarded with Gwyn springing into life and playing on his guitar.

Conclusions

I must say that I and my children liked these programs. They are lively, noisy (if desired) and hold the interest for long periods. Aimed at Key Stage 1 and lower Key Stage 2 (5 - 9 yr olds), the programs could equally be used at home as well as school.

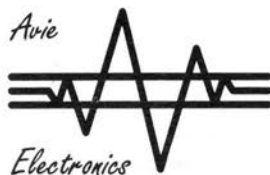
For the sum of £22.95, or £22 through Archive, the purchaser receives three games that generally fulfil and reinforce the appropriate National Curriculum targets. Good value for money and, as Gwyn says, "Go for it", but be prepared to turn down the sound levels. **A**

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Hints and Tips

• **Desktop Font** – If you find you are losing information on RISC OS 3.5 because your desktop font means that characters are truncated in icons designed to take the System font, remember that you can select the system font, until software producers catch up. Alternatively you can edit the offending templates using FormEd, or similar. **Peter Prewett, South Australia.**

• **“Gang screen” in RISC OS 3.5** – In RISC OS 3.10 there is a hidden “gang screen”, showing the names of the people who worked on the version; does anyone know if such a thing also exists in version 3.5? Or can it be that the developers have, this time, only put that picture into the “50-99” directory of !SlideShow images? **Jochen Konietzko, Köln, Germany.**

If you open the RISC OS 3.5 info window (press <menu> over the iconbar acorn) and use the menu button to click out the word “team” on the letters of “Acorn Computers”, it will initiate a list of names for you. **Matthew Hunter, NCS.**

• **!KeyStroke’s KeysLib** – If you use KeyStroke, you should take a close look at the small Basic programs inside the KeysLib library – some of them are very useful!

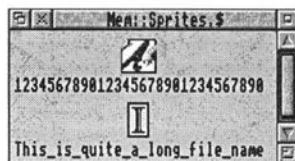
My personal favourites are forceAback and forceAfront which give you quick access to parts of the Pinboard hidden by a window. ForceAback puts all windows behind the Pinboard (you can see that they aren’t simply closed if one of them extends down onto the iconbar) and forceAfront reverses the process. To hide the windows, you define a key-stroke for a *Command:

Text: *Run <Keystroke\$Lib>.forceAback

The equivalent text for forceAfront will make the windows reappear. Of course, you must make sure that the filer has ‘seen’ KeysLib for this to work. **Jochen Konietzko, Köln.**

• **Long file names in RISC OS 3.5** – In Archive 8.6 p.68, Keith Hodge made a little wish list for future versions of RISC OS; one of those wishes was ‘long file names’. The manual for the German RISC OS 3.50D does indeed state that a name must be

between one and ten characters long but this does not seem to be the whole truth. I have grown accustomed to using the Cropping option in RISC OS 3.10, which meant that I did not have to count if the intended name had exactly ten or maybe more letters but on my Risc PC those slightly too long names are not cropped!



As the picture shows, it is possible to type in up to 30 characters before there is an error message “Name too long”. This seems to work only in MemFS – surely there should be a way to implement it everywhere? **Jochen Konietzko, Köln.**

(This doesn’t seem to work on the UK version of RISC OS 3.5. Ed.)

• **Saving Wolfenstein games** – Have you, too, noticed that sometimes, when you save a game in Wolfenstein 3D, the name disappears, giving an ‘empty’ slot in the Save window?

If you have, you probably use CC’s !Compression. I have found that on my RISC PC, as long as the !CFS.!Run file is open, the save option of Wolfenstein 3D does not work properly (If you don’t know how to find out which files are open, there’s a little PD utility called !FileMan which lists all open files and allows you to close them one by one.) **Jochen Konietzko, Köln.**

• **Talking !Alarm** – I have always wanted to have alarms which spoke to me but I could not find a way to do this. When I dropped sound files onto the Alarm Set window, all I got was a silent graph from Audioworks or Soundlab. However, there is a way, thanks to an idea given to me by David Pratt who used to run GemPD. I have used this on the Risc PC, but I see no reason why it shouldn’t work on any other machine. There is probably a clever ‘programmers type’ way to do this, but I am a simple ‘drag and drop’ person with no programming skills at all. You just need two small Utilities obtain-

able from PD. They are !Compress and !Player both by David Radford and obtainable from Datafile.

Using the Oak Recorder and !Soundlab, make Armadeus files of anything you want Alarm to tell you. My first recording was of my wife saying "It's midnight - time to come to bed!" I also recorded snippets like "Coffee time" and, I have to confess, "Time to watch Neighbours".

Using !Compress, make compressed versions of these files. You must not keep the uncompressed files in the computer or !Player seems to get confused and an unholy row erupts!

Now load !Player into your Risc PC Bootfile in Choices.Boot.Tasks. When you drop one of the compressed sound files into the Alarm Set window, choose Task alarm and set the time and day, !Player in the boot file activates the sound exactly on time.

"Are there any drawbacks?" I hear you cry. Well, I found that having done their job, the compressed

sound files seem to remain open, so that when the computer boots up each morning it goes happily through each recording again playing them until finished. But a small price to pay for having a talking chum who tells you what to do each moment of the day. No doubt there will be someone who can tell us how to stop this little problem. **Christopher Jarman, Winchester.**

• **Turbo Drivers and Printers 1.28** - the current versions of the Turbo Drivers complain that they need a later version of !Printers when you try to install them into the latest version of !Printers, currently being shipped with new Risc PCs. This can be circumvented by copying the install program to your hard disc, and editing the copy by removing line 91 of the !RunImage file (that is the 91st line of the program, not Basic line 91). The Turbo Drivers should then install correctly. If you do not wish to attempt this then get in contact with Computer Concepts. **CC Technical Support. A**

Puzzle Corner

Colin Singleton

Suggested answers to my lottery puzzle (What is the smallest number of entries you can make in the National Lottery and be *certain* of a £10 prize?) have come down from millions of entries to hundreds, but we are still a long way from a definite answer. This problem is more difficult than I thought.

Gerald Fitton has included a couple of programs for the rounding problem on recent monthly discs, but no-one has yet submitted one for a *table* of values. See my column (8.5 p30) and Gerald's (8.4 p31).

Perhaps I can offer another unofficial puzzle inspired by an Archive feature? What is the shortest meaningful pangram sentence (containing all 26 letters of the alphabet) that you can devise? (See Christopher Jarman's column, Archive 8.6 p77, and the 8.6 monthly disc).

Here are this month's two puzzles ...

(11) Prime Square

In the grid opposite, the four rows, four columns

9	7	9	1
1	2	1	3
9	7	0	1
3	7	3	9

and two diagonals, each of which can be read both ways, show twenty different four-digit numbers. And they are all prime numbers.

Hang on a minute, I've got it wrong - 9373 and 9131 aren't prime. Bother!!

Well, can you construct a four-by-four grid in which the twenty four-digit numbers are different *and* all prime?

(12) Anagram Dictionary

(I saw this puzzle in a computer magazine about 20 years ago, long before we had on-line dictionaries. Hopefully, not many readers will remember it!)

In an anagram dictionary, the letters of each word are sorted into alphabetical order and the resulting

letter combinations are then listed in alphabetical order. Thus if you start with the word *TRIANGLE* you must look up the entry *AEGILNRT*. You will find that the entry reads *AEGILNRT ALERTING ALTERING INTEGRAL RELATING TRIANGLE*, because five anagrams can be formed from these eight letters.

The question is quite simple – what are the first three entries in the dictionary, and the last three? Current English words only please, no abbreviations or proper names. Chambers' dictionary – the old-fashioned printed paper version – is recommended (as it is for most word games and puzzles).

... and last month's two solutions ...

(9) Egyptian Fractions

The simplest technique is known as *The Greedy Algorithm*. First take the largest possible reciprocal (i.e. the smallest denominator) which does not exceed the required fraction. Then the largest possible from what is left, and so on... This is guaranteed to produce a result, but the expression in last month's column indicates what type of result!

I only know of one other general technique (rather more complex) which does not involve trial and error – I devised it myself. It always produces 'reasonable' results but, in general, does not find the smallest number of reciprocals nor the smallest possible value for the last (largest) denominator.

This puzzle is easier (?) than most because the denominator 89 is prime. Logical reasoning – or inspiration – leads to a solution with four reciprocals.

$$\begin{aligned} \frac{50}{89} &= \frac{50 \times 18}{89 \times 18} = \frac{900}{89 \times 18} = \frac{89 \times 10 + 10}{89 \times 18} \\ &= \frac{89 \times 9 + 89 + 9 + 1}{89 \times 18} = \frac{1}{2} + \frac{1}{18} + \frac{1}{89 \times 2} + \\ \frac{1}{89 \times 18} &= \frac{1}{2} + \frac{1}{18} + \frac{1}{178} + \frac{1}{1602} \end{aligned}$$

It can be proved that four is the minimum number of reciprocals in this case, 1602 being the smallest possible largest denominator in such a solution. There might be a solution with more than four reciprocals with the largest denominator less than 1602, but I suspect not.

(10) Magic Hexagon



Ignoring rotations and reflections, there is only one solution. It can be found by trial and error, but we can narrow the search somewhat with some initial reasoning. The Magic Total must be 38 (one fifth of the total of the numbers 1–19). If the number in the centre is *C*, we can show that the total of the six numbers around the centre is $38 - 2C$ (which means these numbers must all be small), the total of the six corners must be $76 - C$, and the total of the other six is $76 + 2C$ (so they must all be large numbers). The centre number, therefore, cannot be greater than eight.

... and congratulations to the previous month's two winners ...

(7) Friday the Thirteenth – Winner: Robert Newmark of Sunderland

My perpetual calendar, held in two drawfiles ready for printing, was included on last month's program disc (8.6). Don't be impatient – it *does* take a long time to load!

(8) Marbles – Winner: John Greening of Edinburgh.

John's answer of 588 marbles was the equal-best submitted, although not the best possible. The fact that the box was quoted as $15 \times 12 \times 3$ does not imply that you must start with a 15×12 face as the base.

Comments and solutions

John Greening is our first twice-winner in this series of puzzles. Come on, the rest of you – if you don't enter you can't win! I have received quite a number of expressions of goodwill, which is very gratifying, but not too many entries. Please send comments, contributions and solutions to me at 41 St Quentin Drive, Sheffield, S17 4PN. Solutions by **Friday 7th April**, please.

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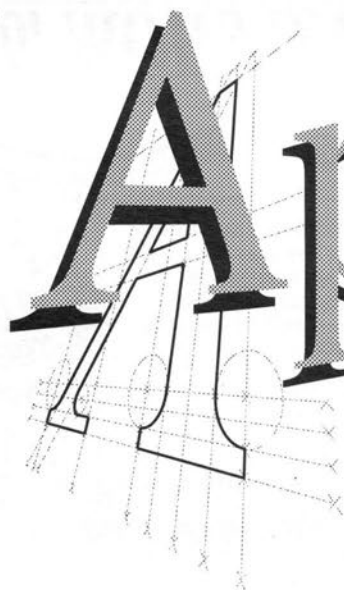
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Phone Day – Updating STD code utilities

Jim Nottingham

In Archive 8.6 p24, Richard Hesketh mentioned the excellence of the !Exchange phone locator. There's a range of similar utilities in the public domain, all of which are valuable, particularly following BT's introduction of the Call Return system last November (simply dial 1471 and, for free, a nice lady tells you the code and number of your last caller).

Unfortunately, being PD, the utilities have tended to lag behind local code changes and, to answer Richard's question about whether they will support the new STD codes after Phone Day, I think it is unlikely. However, it is a simple task to modify the databases ourselves to make them compatible with the new codes. Here's how to do it, using Edit's Find/Replace function. The procedures are similar to those discussed in the recent Text Import articles so, if you get stuck, reading Archive 8.4 pp 44-45 should help to familiarise you with using this function.

There will be minor variations between STD locator utilities, so I'll cover a couple of examples to introduce the different techniques. Firstly, let's have a look at Julian Bristow's !STDFinder.

!STDFinder

As always, before you even *think* about massaging an existing file, make a back-up!!! Now load Edit onto your iconbar. The database of STD codes and place names is found in a text file within the application, so open up its directory viewer by pressing <shift> and double-clicking on !STDFinder. Then step through 'Directories' until we come to the text file called STDfinder. Double-click on it to load the file into Edit.

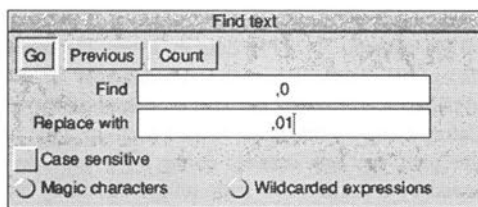
In !STDFinder, the data is in comma-separated value format (CSV), i.e. the place name is followed by a comma, followed by the 'old' STD code:

Apart from the five towns allocated entirely new STD codes (discussed later), all we need to do is to add a '1' after the leading '0', throughout the file. The problem is that, if we do this globally using Find/Replace, we shall add unwanted 1's after *every*

Abbey St Bathans,036 14
Abbey St Bathans,0361
Abbeystown,069 73
Abbotsbury,0305
Abbots Ripton,048 73
Abbots Ripton,0487
Aberaeron,0545

zero so, for example, Abbotsbury's number 0305 would become 013015 which is incorrect. So we need to ensure only the leading zero is massaged and, to do this, we need to make it unique.

In !STDFinder, we can do this by preceding the Find string with the CSV comma. Press <home> (which will ensure the caret goes to the top of the Edit file) and then press <f4> which will open Edit's Find text dialogue box. In the "Find" box, type <,0> to define all the zeros immediately following the CSV commas and then press <return>. In the "Replace with" box, add the '1' by typing <,01> and again press <return>.



The Text found box will open up and clicking on "End of file replace" will cause the 1's to be added throughout the file, but *only* following the leading zeros. This will take quite a few seconds as there are literally thousands of codes to update! Click on "Stop" (or press <return>) and the windows will close.

This leaves us with the five completely new numbers to install for Bristol, Leeds, Leicester, Nottingham and Sheffield. Actually, there are far more than five because, in addition to the main towns, there are also their many districts as well, so again we can use Edit to perform a global Find/Replace. To cover the numbers for Bristol and its environs, for example,

the procedure will be:

Press <home> followed by <f4>

"Find:" Type in <01272><return>*

"Replace with": Type in <0117 9><return>

Click on "End of file replace"

Click on "Stop" (or press <return>)

(*Note: The old numbers will have had the spurious figure 1 added, so we need to include this in the "Find" string).

Repeat this process for the other 4 groups, the numbers being:

Bristol 01272 becomes 0117 9

Leeds 01532 becomes 0113 2

Leicester 01533 becomes 0116 2

Nottingham 01602 becomes 0115 9

Sheffield 01742 becomes 0114 2

Have a look through the Edit file to double-check everything seems OK and then save the file. As a final check, load !STDFinder and run through a few examples, including the five new town numbers, just to make sure everything is working.

!Exchange

The utility which Richard mentioned, !Exchange v0.82, contains its STD data in a text file called Telephone in the Resources sub-directory of the application, so we can get at it as described above. Before doing anything else, make a back-up copy! In this case, the data consists of the STD code, followed by a hexadecimal code [00], followed by the place name.

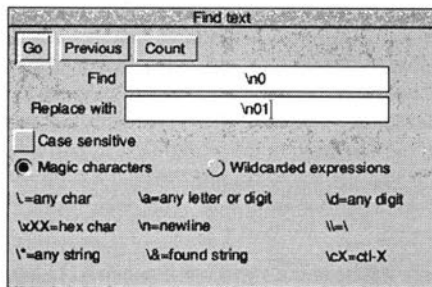
Don't worry about the hex codes but, in this case, we don't have the CSV commas, so we need another method of uniquely differentiating between the leading zeros and any others appearing in the codes. Looking at the Edit file, the answer is there – although it is invisible!

The clue is that, with the exception of the first line, subsequent codes must have immediately been

```
0200[00]clitheroe[01]lancs.
0200 42[00]mercury comms ltd[01]clitheroe,lancs.
0200 45[00]gisburn[01]clitheroe,lancs.
0200 6 [00]slaidburn[01]clitheroe,lancs.
0200 7 [00]bolton by bowland[01]clitheroe,lancs.
0200 8 [00]dunsop bridge[01]clitheroe,lancs.
0202[00]bournemouth[01]dorset
```

preceded by an (invisible) linefeed, otherwise they would simply range across the full width of the Edit window. We can use this to help Edit distinguish between the leading zeros and the others. This time, we shall need to enter a linefeed ('newline') character into the "Find" box and, for this to work, we first need to click on the Magic characters radio button which will open up the additional options.

This time, having pressed <home><f4> to open the Find text box, we type a Newline code in the "Find" box, followed by the zero – <\n0> – and press <return>. In the "Replace with" box, we type in the same but adding the figure 1 before pressing <return>.



Clicking on "End of file replace" once again adds all the 1's but note that, in this case, this doesn't happen for the first code (0200 Clitheroe). This is because the code was not preceded by the linefeed character so Edit didn't find it. So click on "Stop" (or press <return>) to close the box and add the 1 manually in the first line.

Finally, go through the procedure detailed above to amend the five towns and their environs to incorporate their new numbers. Once you are happy, save the file and test the utility, as before.

Other changes

STD codes for any one area do tend to change, often following installation of a digital exchange, and it is perfectly feasible to update the database within your utility accordingly.

Unfortunately, in the majority of cases, I don't think there is any quick alternative to making the changes manually. However, even if your database is out of date, searching for an occurrence of the first 4-5 digits will often give you a clue as to the wher-

about the number so, very often, the value of the utility is not compromised.

Other STD-locators

I'm hoping the variations discussed above will give you sufficient familiarity with the general procedures

to enable you to update the database of any other utilities you prefer to use. However, if you get stuck, do please send me a copy on a disc, with a return label and postage, and I'll try to sort out a solution for you. Jim Nottingham, 16 Westfield Close, Pocklington, York, YO4 2EY. **A**

Risc PC Column

Keith Hodge

Floppy disc drives

Are there floppy drives larger than 1.6Mb? Or do I have to go to the 270Mb 3½" drives? I am finding it more and more difficult to pass files (especially images) from one machine to another. Is this also a problem for other readers? If so, have any ingenious solutions been invented? The only solution I have found to transferring files larger than one floppy disc is to compress the file using SparkFS, then split the resultant archive using a Packet Radio program called 7Plus into a number of parts, save these on a DOS 1.44Mb disc, and copy to the other machine's hard disc. 7Plus is also available for the IBM PC as is PK Unzip, so it is then a simple matter to recombine the file parts using 7Plus and unzip the resultant archive. Just a bit long-winded!

One thing that Acorn or another software house could really do here, is to produce an equivalent for the Risc PC of the file interchange/remote operation software (InterSvr) supplied with DOS 6. This allows the parallel ports of two machines to be interconnected, and the hard drive in the second machine then becomes part of the first machine, allowing files to be sent up and down between machines. If the software were transparent as far as DOS/ADFS was concerned it would allow a Risc PC to be connected to a 486 IBM PC and files to be simply interchanged. (A sudden thought... will the 486 PC CARD with DOS 6 allow the Risc PC parallel port to do this?) (*Well, it ought to do so. Ed.*)

Software information

David Evershed has found that Eesox Ltd now have a driver available to allow the Pioneer DR-U104X CD-ROM to be used on the Risc PC. (David does not mention if the driver was for SCSI, IDE or both.)

The technical support person at Aleph One (aka 'Wookey'), has written to say that David Webb's problems with his Aleph One 386 PC card could have been quickly overcome if he had consulted them. It seems that early versions of the software (< v1.59), only knew about SCSI CD-ROMs. The latest version of the software now supports SCSI, IDE and parallel port connected CD-ROMs. Upgrades are available from Aleph One. I have FAXed them asking if they would like to supply details of their Risc PC products as they become available and I will then inform you all.

Software compatibility

Well not so much compatibility, more an extension of Brian Cowan's comments about changing requirements as time passes and the need to think ahead when buying equipment. When I purchased my top of the range Risc PC, I arranged with Paul for it to have 8Mb of main memory (DRAM) and 2Mb of screen memory (VRAM), thinking (in my ignorance) that this would cover every eventuality.

I am now finding it hard to believe that as soon as I can afford it, I will have to purchase another 16Mb of DRAM. Why? Simply because I had not asked enough questions of my suppliers. I find I need to scan A4 colour printed pictures in very high resolutions (600dpi) and then reduce them to 90dpi resolution for printing using ChangeFSI. This has to be done, because, if you scan at 90dpi, the printed dot structure in the original artwork interacts with the sensor dot pitch in the scanner to produce the most amazing Moire patterns, which render the resulting image unusable! This is shown (hopefully!) in the two images opposite. (*I've no idea how they will come out in the printing process, but the Moire patterns are clear enough on screen. Ed.*) I have also placed the images on the monthly disc.



90 dpi Scan



90 dpi from 600 dpi Scan

Hardware and software news

I am in the process of computerising my family history using 'Family' by Denis Howe. This is a most useful program and is PD into the bargain! I have enclosed the current version (v2.11 30 Jan 1995) on the monthly disc. Are there any family history aficionados out there who can write and tell me how to go about tracing people?

Packet radio

I have still had no luck in finding a good text about

this subject, but I will try to describe the basic operation of the system as I understand it. (As with a lot of every day things, I just use it!)

The system consists of a network of nodes, rather like the Internet. Each of the nodes is called a **Bulletin Board Server (BBS for short)**. The simplest possible BBS consists of a computer and appropriate BBS software, a 144 MHz radio receiver and transmitter (Transceiver). For those of you with a scanning radio, a commonly used frequency is 144.650 MHz. The transmissions are frequency modulated (FM) and sound like a series of tones with a 1200 baud data rate. To allow for more stations and increased speed of operation, BBSs are also starting to use 432 MHz with 9600 baud data rates.

The BBS is able to serve a large number of amateur radio stations simultaneously by sending header strings in its transmissions which identify the station for which the transmission is destined (GW4NEI in my case). To allow other stations to break in and obtain access, the data is sent in small bursts (packets), hence the term Packet Radio.

Each receiving station has a 144 or 432 MHz transceiver, and a data separator known as a **Terminal Node Controller (TNC)**, a sort of modem, which receives audio from the transceiver and converts it to serial data which passes to the serial port on your computer. Likewise, it performs the reverse operation when data is sent from the computer to the transceiver.

Users of the BBS log on and are then able to list all, or a selection by type, of the files on the board. If a desired file is found, it is possible to send commands to receive the file. The BBS will also inform you, when you log on, if there are any messages specifically addressed to you, waiting to be downloaded. A typical listing received, is shown below.

Msg #	TSLD	Size	To	@ BBS	From	Date/Time	Subject
603812	PNL	407	G7ALN	@GB7IMB	GW4NEI	0212/1921	Re: Miscellanea
603810	B\$	1359	PATH	@GBR	G1URG	0212/1535	Path to ISLE OF WIGHT ??????
603809	B\$	404	ALL	@GBR	GW0LGN	0212/1908	TCPIP/BAYCOM/XT
603794	B\$	1016	C64	@GBR	G1STL	0212/1727	Scriptfile For C64 Anyone Plea
603758	B\$	2444	KEPLER	@GBR	FB1RCI	0210/0637	STS-63 2Line day=41
603748	BF	2535	KEPLER	@GBR	FB1RCI	0210/0634	MIR 2Line day=40

The software I use, which is called Comlink, has the useful feature of highlighting references to my callsign and any other which I specify. Each type is in a colour I specify – most useful.

This is the BBS operating as a Bulletin Board, where files are sent to “ALL” for general information, or “ARCHIM” for files concerning Archimedes and Risc PC users.

Some BBSs also contain a file area, which exists in the form of a pseudo DOS filing system. As you can probably imagine, there are an almost unlimited number of file areas, dedicated to almost any computer type, or topic, you can imagine. These can be downloaded as required, often overnight, by using a script language to control your computer.

The BBS can also operate as a personal message server, and here, the seemingly meaningless information which I place at the end of the column each month, comes into its own.

The descriptor, “GW4NEI@GB7OAR.#16.GBR.EU” when sent to a BBS as a header, breaks down to mean:

Send the file which follows to... GW4NEI (My callsign which is used as a mailbox ID), at GB7OAR (My BBS on the Wirral), at #16 (The specific network area address), which is located in Great Britain (GBR) in EU (Europe).

This allows me to communicate with friends all over the UK and indeed, the world, for nothing. The service is run by a dedicated group of people (Radio Amateurs) who run the system under the guidance of the Radio Society of Great Britain (RSGB).

This is, of course, a very simplified description. There are, in fact, many transmitters and receivers at each BBS working at higher baud rates and using ultra high frequency transmissions (Microwave). These form the inter-BBS network which runs over the whole of the UK and allows me to send messages to people almost anywhere.

Finally, if you fancy having a go at packet radio, then get in touch with your local technical college, or the RSGB. The exam for a class B Amateur Radio licence, which is all that is required, is quite straightforward, and most colleges run a winter evening class.

Wish list for the next Risc PC / New issues of Basic

Provision for 4Mb of screen RAM (VRAM) and a faster VIDC20 for *really* high resolution screens without flicker. (I have a 24" 64kHz line scan rate, ultra high resolution, monochrome monitor that I would dearly love to be able to use for engineering drafting!)

Gripe of the month

As of today (12.2.1995) there is still no news about my 486 PC card...!@&\$!.....

Questions of the month

(1) Does anyone know of a software package which will allow three dimensional data from building plans to be input and the resultant 3D image to be viewed and printed from any desired angle? I do have a registered copy of Euclid (v2.05 12 Jul 89) but this no longer displays the tool pane correctly and is very prone to memory exceptions under RISC OS 3.5. Also, I have no idea where, or if, it can be upgraded.

(2) From Colin Davies: “Has anybody managed to get a Philips CM207 CD-ROM working and, if so, where was the driver obtained from?” (How about giving Eesox a ring? See above.)

Tailpiece

A number of people have had to ring two or three times before finding me at home. If you have a query and have access to a fax then just ring to arrange for the fax to be put on line and send your query. I will then reply when I get home. (Business is getting very busy so I am often out during the early evening. Also, my son and I have decided to construct our own “Pietenpol AirCamper” light aircraft, so we both need a 32 hour day!)

As usual, I can be contacted by letter at the HES address on the back page, by telephone after 7p.m. or by Packet Radio from anywhere in the world, as GW4NEI@GB7OAR.#16.GBR.EU. 

Comment Column

• **Cumana SCSI II Interface** – In Archive 8.5 p39, Jim Nottingham reported information he had received that the Cumana SCSI II interface was compatible with any pre-Risc PC computer which would accept a standard podule. Cumana have advised that this applies only to the 'fast-RAM' machines; namely, A540 and A5000. The Cumana SCSI II interface is not compatible with earlier models. **Jim Nottingham / Chris Manning.**

• **Internet names** – I may be able to help your unknown correspondent commenting on Internet (8.5 p25) and asking about decoding of names to Internet numbers. I think that this can be done at two levels. One is within the ftp/email server where there is a Look-Up facility which decodes a name. Most IBM / Apple programs make use of this so that you can use names directly. I have been told that this is possible in the Acorn TCP/IP suite but have not found any reference to it. I had help from someone from Acorn in setting up, but he has been unable to find out more. If this is the problem, I would like to know the solution too!

However, it is possible that your correspondent does not know about the second method. There is a file called "Hosts" in the !Internet.files directory. Here you can list numbers and with associated names, so that you have the convenience of using this set of names in all operations. The structure of the file is:

```
137.222.50.231      dlewis.pys.bris.ac.uk
1.0.0.1            test
# Domain name servers.
137.222.10.36       information
137.222.10.40       mail
.....             etc
```

The first line is my own number and name. I am not sure if the second is necessary but keep it for luck. The fourth and subsequent lines are Internet numbers that I have had to look-up using the server facility. Clearly, this is not very convenient initially, but soon pays back the time spent.

This seems to be the level of facility that Acorn must get right if they are not going to succumb to the big two in education beyond school level. We are well supplied with the common major applications, but a

wide range of more specialised programs seems important for further progress. Do Acorn commission firms to write specific software of this secondary level of importance? It seems that if a firm knew that they had a head start in a definite market niche, they are more likely to take on some development than in an open competition. **Don Lewis, Don.Lewis@bristol.ac.uk.**

• **More prejudice** – The Guardian is not the only publication that we should complain about...

'If you just want to play games or write the odd letter...' Review of computers in 'Which' magazine referring to Acorn (that cost them a subscription).

'When you popped up a menu, there was disc activity as the bitmap of the screen behind was stored to disc. This made the mouse pointer very slow and hesitant'. Personal Computer Magazine reviewing 'the fastest 486 we have ever tested'.

'A brilliant innovation is the ability to switch resolutions on the fly... without a restart'. PCM reviewing the PowerPC. 'Innovation'? – I ask you!

'The NEC Superscript 610 is the first personal laser printer in the world to be driven by your PC's processor rather than its own'. PCM advert July '94.

'The principal reason for buying a computer was to help the children in their schoolwork. Since I also wished to use it for some serious wordprocessing I opted for a PC'. From an article in 'Fun Learning on the Computer' issue 1. **Edward Naish, Gwynedd.**

• **NewLook/Alarm bug** – Acorn have stated that the bug which causes the !NewLook/RISC OS 3.5 window tools to work incorrectly when !Alarm is running will be fixed in "the next iteration of RISC OS". Apparently, it is caused by attempts to redraw the tools while !Alarm is trying to update the iconbar clock. **M Churchill, High Wycombe.**

• **Softcrete review** – As an alternative to Softcrete, there is the Shareware "Lockit" program which can use either unique I.D. CMOS password, transitory password, Timestamps, configure stamps, etc. It does not yet work on Basic !Runimage files without first converting them to absolute using

!MAKEpps (which is supplied with it). It is available from APDL and elsewhere, I suspect. **Tim Nicholson, Albury, Surrey.**

• **Software for Archaeology and History** – I am preparing a booklet for the Council for British Archaeology listing all known computer software for teaching Archaeology and History at any level, including History in the National Curriculum for schools. The booklet will show all the usual catalogue information, formats, prices and availability, and then will follow notes, or a brief review, of each item with particular attention to its teaching value. We intend it to become a standard work on the subjects and to be continuously revised. The first edition should be published in the first half of 1995, preferably for the Harrogate Show.

The booklet will include multimedia presentations, text resources, clipart, antique fonts, work sheets and any other items discovered. We are interested in material on any computer platform and on any medium – floppy disc, CD-ROM, LaserVision, CD-

i, or whatever. So far, material for the Acorn Archimedes is much in the majority (surprise!), with PCs becoming better represented in very recent material and with Apple way, way behind.

I am interested in receiving direct from teachers – and from students and pupils – news and reviews of any relevant software that they are using. I am also interested in comments about what they would like to see in the booklet or about other relevant matters, such as software that they would like to see produced or ways of approach that they think should be considered by authors.

I should welcome from authors and publishers, review copies of any material that they have not already sent me and copies of any published reviews. Also, I should like to have information about forthcoming material, stating its present progress and planned date of release and what information should be published at this stage. **Michael Binns**, 15 Redewater Road, Newcastle upon Tyne, NE4 9UD (0191-274-4451). **A**

Small Ads

(Small ads for Acorn 32-bit computers and related products are free for subscribers but we reserve the right to publish all, part or none of the material you send, as we think fit. i.e. some people don't know what 'small' means and there are certain things, as you can imagine, that we would not be prepared to advertise as a matter of principle. Sending small ads (especially long ones!) on disc is helpful but not essential. Ed)

• **2nd Floppy Kit** for A300 or early A400 £30 complete. Acorn 2-slot backplane & fan £15, 30Mb MFM drive £30, PipeDream3 £15, DOS 5 for PC Emulator new £15. All include postage. Phone Dave on 01992-462072.

• **A3000** – 4Mb, RISC OS 3.1, 20Mb IDE drive, Ovation, PC Emulator, Taxan Multivision Monitor £650. Phone 01732-454707.

• **A3000** – 4Mb, ARM3, RISC OS 3.1, serial upgrade, 8bit Turbo Serial Port SCSI card 105Mb SCSI HD, Monitor Plinth, AKF12 Stereo Monitor, PC Emulator 1.8 £500 ono + postage. Phone 01222-615517.

• **A3010** – specially upgraded by NCS 18 months ago! Internal 20Mb Hard Drive, 4Mb RAM, RISC OS 3.1, Eizo 9060S colour monitor, unregistered Impression II + Borders, No 62 Honeypot Lane. All original software including unopened PC Emulator, Easiword, etc. Total bundle £750, but will split out Eizo for separate sale if required. Phone 01235-815856 and talk to Alistair or Ali.

• **A310** – 2Mb RISC OS 3.1, disc buffer, serial link, AKF11 monitor, manuals, discs £250. PipeDream 3 £20. AlphaBase (0.52) £10. Fascia for second floppy drive & leads £10. Phone 01508-578189 eves.

• **A410/1** – 2Mb RAM 40Mb HD Eizo 9060S-M 14" multiscan. Excellent condition £400 o.n.o. Phone 01380-725075.

• **A410/1** – 4Mb RAM, 33MHz ARM3, 50Mb HD, NewLook desktop, I/O Podule, Midi, Sound sampler, keyboard extension cable and postage £525 o.n.o. RISC OS Style Guide with disc £10. Phone Mark after 6 on 0905-754277.

- **A410/1** – one of the last ones made, 2Mb RAM RISC OS 3.1, 20Mb internal HD, 5¼" disc interface, Joystick interface, Epson MX82 printer, software £495. Phone 01287-610255.
- **A410/1** – RISC OS 3.1, 4Mb RAM, ARM 3, Atomwide VIDC enhancer, Oak 16-bit SCSI board, 47Mb internal hard disc, 105Mb SCSI hard disc, Eizo 9060S multisync monitor, all boxed with manuals, some software. £700. Phone 01325-463873 after 6.
- **A5000** – 4Mb 40Mb HD, PC Emulator, PD software £695 o.n.o. Phone Mike on 0181-994-7683.
- **A5000** – 8Mb RAM, FPA Chip, 203Mb HD, RISC OS 3.11, Colour Card Gold £850, A5000, 4Mb RAM, 80Mb HD, RISC OS 3.11, Colour Card Gold £675, 20" Sony Monitor £900, HP500 Printer £175, Cumana CD-ROM Drive £175 with Image Warehouse CD-ROM, 632Mb HD £200, CC Scanlight A4 £225. All vgc. Phone Russell 0131-658-1225 after 6, or w/e.
- **A540** – 8Mb RAM, RISC OS 3.10, 120Mb SCSI drive, Acorn SCSI board, some software, Eizo 9060S multisync monitor £890. Insite 21Mb Floptical SCSI drive + 10 discs £200. Cumana 5¼" floppy drive plus interface podule £30. Phone 0342-714905.
- **AKF60** – 14" SVGA Multiscan ES monitor. Brand new, boxed and unregistered, £240. Phone Steve on 0924-828037.
- **Aleph One 486PC** – 4Mb/50MHz + Floating point co-processor, IPC Software 1.23 + Windows drivers VGA & SVGA, £450 o.n.o. Phone Mike 081-399-8320.
- **Canon BJ200**, with auto sheet feeder £180. Phone 061-976-2525.
- **Citizen Swift 24** boxed as new, offers. Iota Touch Type Tutor £25, Saloon Cars £8, DeskEdit £10, 25w to 50w SCSI lead £8, Econet Bridge offers, NEC CD-ROM drivers £15, Design Concept Italic £5, David Pilling Trace £3, Four player joystick interface £18, Book – Archimedes Assembly Language, perfect order £8. Phone Chris on 01247-466686 6–9pm.
- **Hard Drive** 20Mb ST506 £50, ST506 podule £40, ST506 podule in case with uncased psu £50. Phone 01332-701969.
- **Hot numbers** – Use the power of your Acorn computer to select the hottest lottery numbers from up to 1,000,000 draws. Multitasking application with graphical displays. Send £1.50 to Ben Ollivère, 6 Truro Close, East Leake, LE12 6HB.
- **Impression Style** boxed with packaged programs, WordWorks, Equasor, TableMate 2 (version 2.00m-1) and manuals + extra borders by Fabis £85. Phone 0131-447-8624.
- **Irlam 24i16** brand new video/sound card (Feb 1995) 1Mb VRAM full frame version £370. Colour Card Gold £160, Scanlight Video 256 £150. Phone Iain 01463-751251 or fax 751240.
- **PipeDream v.4.13** £40, Acorn PCEm 1.8 & DR-DOS 5 £20, DeskEdit 3 £8, Genesis Plus £5, E-Type £5, used 800Kb discs £3 per 10. Phone Ernie Cobbold on 01493-740557.
- **Printer** Epson wide carriage dot matrix LQ1050+ £65. Phone 01332-701969.
- **Scanlight 256** £100, Acorn I/O podule £30. Phone Dave on 0121-745-2423.
- **Sinclair Z88** expanded 128Kb internal memory + two 128Kb external Rampacks + manuals £45, Phone Mike 081-399-8320.
- **Turbo Driver** – (RISC OS 3) for HP Deskjets & Laserjets + special printer cable + original packaging/manual £20, Hi-Fi Sound upgrade for A5000, A3000, A400/1 and all other earlier computers £10. Phone Mike 081-399-8320.
- **Wanted** – PCB CAD software e.g. ArcPCB or similar. Phone Chris on 01247-466686 6–9pm.
- **Wanted** – Unregistered Font Directory. Will give unregistered Pro-Artisan 2 CD in exchange. Phone Frode 305-861-2931 (USA – anytime).

Charity Sales

The following items are available for sale in aid of charity. PLEASE do not just send money – ring us on 01603-766592 to check if the items are still available. Thank you.

N.B. These items are sold AS SEEN (even though you can't see them!), i.e. we are not able to give refunds if the items are not suitable for your computer or whatever. All the money paid goes straight to charity therefore NCS cannot be involved in correspondence etc over these items. If it turns out to be no good for you but might do for someone else, please send it back with a note and we will sell it again with the proviso you state, e.g. "It doesn't work on a Risc PC."

Software: Five assorted old games £4, ArcWriter £3, Archway £8, Datavision database £5, Multi-store £20, Chess £2, Wimp Game £4, Iron Lord £4, Photopia £8, First Word Plus2 £4.

Hardware: 5¼" drive interface £5, Serial Port Joystick interface £5, Paper Feeder for CC A4 handheld scanner £15, PCATS Graphics enhancer £15, Floppy discs £12 per 50, Acorn Econet interfaces (5 off) £15 each, Green ink refill for HP cartridge £6, Cyan ink refill for Canon BC01 cartridge £6, Yellow ink refill for Canon BC01 cartridge £6.

(If you have unwanted software or hardware for Archimedes computers that you could donate in aid of charity, please send it to the Archive office. If you have larger items where post would be expensive, just send us details of the item(s) and how the purchaser can get hold of them.) **A**

The Engineer Speaks

Ray Maidstone

A3000 RAM expansion pins

For those with aging A3000s that have more than 1Mb, it is important to know that the expansion pins on which the memory board is connected often cause problems because they can be affected by contamination in the atmosphere and surroundings. Pins can be cleaned or, better still, replaced – or even done away with altogether! Owners of 4Mb upgrades may like to have them permanently soldered to the motherboard. This increases reliability and removes the contact resistance introduced by plugs and sockets.

The fault can be made to show up (if it is developing) by switching on the machine with the desktop and giving the board a slight twist. If you get an address exception, switch off straight away. This means your machine may start to become unreliable. If this problem occurs during normal use and you do not switch off, there is a possibility that the RAM chips may be damaged.

A3000 power supplies

By now the power supplies in A3000s are beginning to get long in the tooth, and they can sometimes go pop! Capacitors in the power supply can dry out and zener diodes can deteriorate and make it run at the wrong voltage. Sometimes power supplies are not repairable if they explode, so get the machine

checked out if you can, as an over-haul is usually cheaper than a replacement.

A4 battery usage

Some users may have noticed that the batteries in these powerful portables do not last very long. In accordance with NiCad manufacturers' statements, they need to be charged and discharged correctly to give maximum performance – as any radio control car/plane/boat owner will know! People often use their A4 with a mains supply, trying to keep topping up the battery while they work and then draining it a little bit by using it from battery and so on. It is better for the battery if you remove it from the A4 while you use a mains power supply, and also that you run it down as much as possible when you work from the battery. Ideally you need two batteries, one to use and one to be charging after full use and discharge. To fully discharge, put a 12v 10-12w car bulb across the two outer contacts of the four on the end of the battery. Leave it connected until the bulb fades and goes out. Disconnect the bulb and then charge the battery at the normal rate (typically 8 hours at 300mA).

Next month, we'll discuss some more servicing problems and some more examples where prevention is better than cure. **A**



Keystroke Column

Alisdair Jorgensen

Alisdair, who is the author of Keystroke, has agreed to do a column for us, so send in your requests for help either to the NCS office or direct to Alisdair at the address below. Ed.

Welcome to the first instalment of the Keystroke Column. In this column, I hope to answer questions about some of the mysteries of Keystroke and what it can do, as well as offering hints and tips on how to use it. Keystroke has evolved into a very versatile piece of software and I'm always finding new things it can do that I never thought possible.

This column was done in a bit of a hurry, in between getting my computer repaired, so it's likely to be a bit shorter than I would have liked. It will be longer in future, as more people write in with questions/comments/ideas/etc.

Repeating keystrokes

I would like to explain how keystrokes can be set up to repeat themselves, a function that I find very useful for block processing, such as converting a directory full of GIFs to JPEGs to cut down on hard drive usage.

Some time ago, we received a letter from a user who had work to do on a spreadsheet, and for each column he needed to do a series of operations. He was most pleased when Keystroke allowed him to simply point at each one and press a key combination. I realised later that it was possible to point at the first, get Keystroke to move automatically to the next and continue, so he only needed to touch the keyboard once!

To achieve this sort of repetition, all you need to do is, at the end of your keystroke, define a sequence that moves it to the next file, or record, or whatever and, to finish, do a *command, 'Set Keystroke\$Do0 <keystroke name>' and it'll call itself and go again! If you need to move to the next file in a directory, there are the library functions to get a list of directory entries or, failing that, you can have your keystroke positioning a filer window and relatively scrolling it each time. For things like spreadsheets,

all you need to do is a text insert, moving the cursor to the next row or column.

Coping with delays

Another problem some users have come across is when Keystroke would have to wait half way through a sequence for something to happen before continuing. This is a little more difficult. You have to split the keystroke into three parts, putting each part on a separate key combination. The first part should include the start of the sequence, finishing with the one *before* it would have to wait. The second part is just the single keystroke after that, and the third part is the rest of the keystroke.

At the end of the first part, call the second part using 'Set Keystroke\$Do0 <part 2>'. In front of part 2, put a *command, 'Set KS\$Check Fail' and, after it, put a *command, 'Set KS\$Check Succeed' and link them. The result of this is that the variable KS\$Check gets set to Fail and, only when it succeeds, it gets set to 'Succeed', i.e. KS\$Check contains either 'Succeed' or 'Fail', depending on whether or not it's ready. Then, at the end of this combination, you do a 'If "<KS\$Check>" = "Fail" Then Set Keystroke\$Do0 <part 2> Else Set Keystroke\$Do0 <part 3>'. If it isn't ready, the keystroke will fail and it will try again. If it is ready, it will go onto the rest of the keystroke.

I hope this is of some help to people. Next time, I'll explain how a keystroke combination can be created to adjust the size of a RAM drive even when it isn't empty.

Alisdair Jorgensen Easter Cottage, Canalside, Winchburgh, Scotland, EH52 6PU. (email: ceeadj@cee.hw.ac.uk) 

Stuart Halliday (also of Quantum Software fame) has very kindly sent in a description of how to set Keystroke to perform a routine for stripping out carriage returns from preformatted text as requested by Stuart Bell in Archive 8.4 p49. This is included on the monthly program disc rather than being put in print because it is three pages long. Ed.

RISC OS 3 **Turbo** D R I V E R S

VERSION

4

...more Drivers

The TurboDrivers have been extended to support new printers, including the Epson Stylus Colour and to be compatible with the latest versions of Acorn !Printers and the RiscPC.

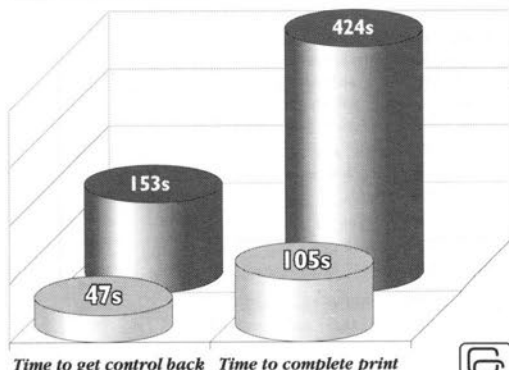
...more Turbo!

In the simplest cases, printing single copies of black and white documents, with little or no graphics, the TurboDrivers give performance gains of twice or more. However, for more complex documents, or multiple copies, or for colour documents the gains can be even more spectacular.

Our tests show that when printing two copies of a typical 3 page document, containing a good mix of font styles, Draw and Sprite graphics, TurboDrivers can give control back up to ten times sooner than the Acorn drivers.

Risc PC TurboDriver timings

■ Acorn !Printers
■ TurboDrivers



Time to get control back Time to complete print



Computer Concepts Ltd

Gaddesden Place, Hemel Hempstead, Herts, HP2 6EX Tel 01442 63933 Fax 01422 231632

Email info@cconcepts.co.uk

These tests are done with the Acorn drivers in 'background' mode (the new 'faster' way to get control back). When using the Acorn drivers in 'normal' mode the differences are even greater. The speed gains apply both to the older Acorn range and the Risc PC computers.

With the availability of new reasonable cost colour inkjet printers, and the increasing use of colour in printed documents, there is now even more reason to use TurboDrivers than ever before.

TurboDrivers Canon - £49 + VAT (£57.57 inc)

TurboDrivers HP - £49 + VAT (£57.57 inc)

TurboDrivers Epson - £49 + VAT (£57.57 inc)

Version 4 drivers require Risc OS 3.1 or later.

2 MByte RAM and hard disc recommended.

Please state printer type when ordering.



The graph shows the spectacular performance gains that are possible using TurboDrivers. These comparisons are made using the latest versions of !Printers, with a fairly complex single page DTP document (!MicroScope) on a colour inkjet and show that even on a Risc PC, the TurboDrivers can dramatically improve your printing performance.

It's time to
get *sensitive*
about the way
you *create*
your graphics

Many computer users feel that a graphics tablet is more natural to use than a mouse and without doubt it gives a much faster, smoother and higher resolution response. The mouse remains functional and can be used at the same time as the pen — however the pen has such a natural and precise feel, you will probably prefer it for many operations such as moving windows, drag and drop, region selection etc.

The new (approximately A6) ArtPad tablet offers a superb specification, even by Wacom standards; resolution exceeding 2000 dpi, 200 samples per second and 256 levels of pressure. All Wacom tablets include a cordless pen for added ease of use and flexibility.

The tablets are pressure sensitive, so in combination with suitable applications they can produce realistic effects such as variable width (the Eesox ArtWorks pressure sensitive tool) or variable density airbrush painting (PhotoDesk). The Computer Concepts' drivers will be compatible with these and other software that can take advantage of the pressure information, such as Studio 24 and DA Picture.

Computer Concepts can supply the tablets with either Photodesk or the Eesox Pressure Tool at special prices. **PHOTODESK** is a photo retouching package from Spacotech, which offers a wide range of advanced image manipulation features; for example an airbrush, paintbrush and magic wand, full 24 bit colour support, the use of virtual memory, OLE with Impression, complete undo, effects such as colouring, toning and masking, motion blurring, cloning and smudge and smear.

The package contains the Wacom tablet (A6 ArtPad, A5 or A4) and manual, a cordless pen, Computer Concepts driver software suitable for all models of Acorn RISC computer (A3000 must have serial port upgrade) and PC drivers. Requires 1Mbyte or more.

Price: A6 ArtPad & drivers: £169 + VAT (£198.57 incl.)

A5 tablet & drivers: £399 + VAT (£468.82 incl.)

A4 tablet & drivers: £549 + VAT (£645.07 incl.)

ArtWorks Pressure Tool with tablet: add £10 + VAT (£11.75 incl.)

PhotoDesk with tablet: add £125 + VAT (£146.87 incl.)

ArtWorks Pressure Tool: £39 + VAT (£45.82 incl.) PhotoDesk: £169 + VAT (£198.57 incl.)



Computer Concepts Ltd

Sleuth 2 OCR Upgrade

Peter Jennings

When software is given a new version number, rather than just incrementing the figures after the decimal point, you expect some significant changes for the better. Sleuth 2, the latest upgrade to Beebug's optical character recognition program, lives up to expectations with new features and a measurably improved performance. There is a new 23-page manual and a new, higher, price at £99 +VAT, or £110 inclusive from Archive. Upgrades from earlier versions are available from Beebug at £49 +VAT. (Sorry if anyone was misled by an incorrect price which was added at the end of my review of an earlier version in January's Archive.)

Having previously used Sleuth 1.01 and 1.51 (see reviews in Archive 7.1 p53 and 8.4 p73) I loaded up version 2.02 and plunged straight in with only a cursory glance at the manual. My first test was to drag in the sprite of the Archive paragraph scanned for the original review and used again for the subsequent upgrade. Version 1.01 had produced 10 errors to give an error rate for that paragraph of 2.7%. The 1.51 upgrade improved to four errors, or 1.2%. The output from Sleuth 2.02 appeared to be completely correct and it took a very close scrutiny to spot that a dash had been interpreted as a hyphen and a badly printed figure 1 as a letter l. (Apart from anyone working to the most exacting standards, such as publishing, how many users would have noticed or been picky enough to have cared about either?)

```
*FX21,3
empty%=ADVAL(-4)
PRINT "Printer is ";
*FX3,10
PRINTCHR$(0);
a%=INKEY(20)
a%=ADVAL(-4)
*FX3,0
*FX21,3
IF a%<>empty% THEN
PRINT "not on line"
ELSE PRINT "on line"
ENDIF
END
```



Words not recognised by the spelling checker are highlighted in the output window, for editing if necessary, although most of them are correct.

WHILE children rave about the latest software packages they are using in the classroom, many parents have no idea how to switch on a computer. But gone are the days when mums and dads could pour over exercise books to assist with homework.

Now, whatever their fear of computer technology, parents are seeing the merit of buying for the home a similar machine to that used by their children in class.

Acorn Computers Ltd has been quick to see the growth potential of the home learning market, and now both parents and schools are reaping the rewards of Acorn's loyalty to education in its Acorn Advantage scheme. The promotion allocates

Acorn will key parents into schools

spent in the supermarket chain of stores.

One of the reasons Acorn is considered the driving force in schools' information technology is because its Education Business Unit constantly monitors the needs of teachers and children.

THEIR ILLIGENCE gained is translated into jargon-free advice for parents

By **LEYLA LINTON**

Buying an Acorn computer for the home, parents can not only help their child at home, but also assist their child's school.

*Acorn has always set itself apart from other computers in the education

Areas of complicated layouts can be marked as zones to be ignore by Sleuth. It will identify the columns itself.

One hundred fonts

Sleuth now recognises the following characters in almost 100 fonts, although still only from 9pt to 24pt in size:

!?"\$%&'()*+,-./:;@#0123456789ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz"fit*-

There is now a built-in spelling checker and this highlighted seven words which it did not recognise in my test. Ironically, the first of these was "OCR". The others were all prefixed with "L", "+" or "p" (for a page number). This spelling checker is a major enhancement. Unrecognised strings are highlighted in yellow, as if with a marker pen, so immediately drawing attention to doubtful words as each block of text appears on the screen. As before, corrections can be made while the program is still outputting and pressing <F1> will position the caret on the first highlighted word and subsequently move it onto the next. If you are to make use of this facility, it is necessary to edit the output before saving, because all the highlights disappear when the text is saved. Progress does have its drawbacks and the output now appears in its window after each paragraph has been completed, instead of line by line, for reasons which will be explained later.

I repeated some other tests which I had attempted with earlier versions but which had not been published because they included badly printed text (not a fair test) or italic, which the earlier versions had not been trained to recognise. Both now showed considerable improvement and the italic, which had predictably produced rubbish before, was now readable. Bold and italic text can now be seen as such in the output window and Trinity and Homerton fonts are used there to represent serif and sans serif typefaces in the original. The text can be saved as a plain ASCII file, as before, or complete with styles as a Rich Text Format (RTF) file for import into packages, such as Impression Style or Publisher which accept it.

Choice of speed

Another new feature of this upgrade is a choice of speed/accuracy at three levels: careful, medium or quick, with medium being the recommended default. The careful setting is slower and generally more accurate although a couple of the tests I made had a character or two worse! The timings for my original test paragraph were: quick 17 seconds, medium 19 seconds and careful 35 seconds and all produced identical results. These should be taken only as comparison figures as actual timings can vary significantly depending on what other programs are running. I have found in previously reported

tests that stripping the iconbar can make a big difference.

Page layouts with multiple columns and illustrations are now recognised and dealt with automatically although zones can still be created by dragging with <select>, as in previous versions, if the layout is particularly complex. Any number of zones can be created and linked in any order for processing. Zones can also be set to mark areas to be ignored. There is a "save zones" option which can be very useful if a particular page layout is used more than once.

Sleuth originally accepted only mode 18 sprites, which most scanners will produce, but it can now deal with modes 4, 18, 23, 25 and 29.

Real life

It is always interesting to hear the views of people using new software for a real life purpose. Jim Nottingham, of York, has written about his experiences with Sleuth 2:

"I had a task to incorporate about 120 A4 pages of 12pt text, from a sub-contractor in the States, into a document required very urgently in Malaysia ... with an impossible timescale (no time to post discs etc) and the only thing I could think of was to get the pages sent by fax and type the stuff in manually. However, the Sleuth 2 upgrade arrived the same morning - only 3 days after being ordered. Almost in desperation, I tried scanning a couple of pages and pushing them through Sleuth 2. To cut a short story even shorter, the OCR results were extremely respectable and we finished up by faxing, scanning and successfully Sleuth-ing all 120 pages. The end result was that the finished documents were shipped to Malaysia a day before the deadline."

Jim had very few problems with this job. The main one was that Sleuth failed to recognise separate paragraphs when there was less than double spacing between them. This meant that each page was treated by Sleuth as a single paragraph and no text was output for correcting until the whole page had been processed. He asked Beebug if the text could be output a line at a time, as in earlier versions, and if an end-of-paragraph character could be inserted during editing. Beebug replied:

"It is not possible for the package to output text any quicker than it does because of the constraint of determining a style for the paragraph. The program needs as much information about a paragraph as it can get before determining its style. This situation is likely to get worse rather than better as the program gets more complex (and more accurate).

The final goal is to reverse engineer a page of text so that the output from Sleuth is identical to the input. It may be possible to modify this process so that the user can be informed if the output is rubbish or not to stop the situation where you wait five minutes for an A4 page to convert to find that there is no recognisable text. A method of inserting and removing paragraph breaks was in the original specification for Sleuth as were many other features. We had to trim the feature list to bring the program out in 1994 which was our main aim. It is likely that these features will be present in Sleuth 2.5."

Accuracy

Beebug have always been very frank about Sleuth's limitations but its steady improvements, including the wide range of fonts it is now trained to recognise and the new spelling checker, have brought it to the stage where it can achieve 100 per cent accuracy if all other conditions are right. This rarely happens but it no longer seems appropriate to report the percentage of errors in tests when these can now be more a measure of the quality of the printing and scanning of the original.

Sleuth 2 costs almost twice the price of the original version but this seems a fair reflection of its improved performance and users of the earlier versions should find it well worth upgrading. More developments are promised in future issues and Beebug's commitment to the program is apparent in their encouragement of users' comments and their willingness to send a detailed personal reply. **A**

Hardware News

Paul Beverley

Those of you with Risc PC 600s will be wondering when you can make them into Risc PC 700's! "Unofficial sources at Acorn" say that the ARM710 should be available around the end of 2nd quarter 1995 and the ARM810 in 1996. In the meantime, we have some very exciting news for power-hungry Risc PC users...

Enter the StrongARM

The following announcement from Acorn describes a link-up with DEC to produce extremely high-power ARM chips.

"Digital Equipment Corp's semiconductor business - now trading as Digital Semiconductor - has decided that the Alpha RISC design is inappropriate for emerging low-end embedded applications, and it has joined the growing band of licensees of the ARM Ltd RISC technology. A new high-performance family of StrongARM RISCs, fully software-compatible with ARM 6, 7 and 8 and retaining their low power consumption is to be developed. The first product is currently being designed at DEC's Palo Alto and Austin research centres and at ARM's

Cambridge, UK base. They are expected to be among the first products to be manufactured at DEC's new FAB 6 plant in Hudson, Massachusetts.

"Apple's Newton engineering team has been working with DEC and ARM Ltd on definition of the StrongARM family and plans to use it in future iterations of the Newton. As well as Personal Digital Assistants, other target applications include television set-top decoders, video games systems - the present 3DO Multiplayers all use the ARM RISC, and digital imaging applications, including image capture, scanning and printing. Acorn Computer Group Plc also plans to use the StrongARM in its future personal computers, and its Online Media spin-off also plans to use the chips in future television set-top boxes. Processors and processor cores will be available for licensing to the other ARM semiconductor partners, which include VLSI Technology Inc, GEC Plessey Semiconductors Ltd, Sharp Corp, Samsung Electronics Co, Cirrus Logic Inc and Texas Instruments Inc."

As you can imagine, everyone at Acorn is very excited by this new partnership. A tiny player (in world terms) has licensed its technology to a major

world chip manufacturer and these new chips are being designed and built by the most advanced silicon fabrication facility in the world. DEC's plant uses 0.35 μ fabrication (cf Acorn's present 0.8 μ chips) and so it looks likely that we could be talking about 200MHz or 400MHz StrongARM chips being available in 1996.

I would guess that these new chips would have large primary caches, probably using Harvard-style caching techniques. The cost of the chips is unlikely to be significantly different from current ARM-chip

prices but to use them with the sort of RAM that you find in the Risc PC, you would need a board with some high speed (10/15ns) RAM as a secondary cache. This RAM is expensive and so a StrongARM processor card would probably end up costing £200 or £300 – but I would pay that for a 200MHz Risc PC, wouldn't you?! Actually, there could be problems with some applications, depending on how they are written, with the processor being too fast and causing the application to lose track of itself! **A**

Bitfolio Graphics

Dave Wilcox

Bitfolio More Cartoon Graphics and the Christmas Collection are the latest offerings from LOOKsystems with original work by Management Graphics Ltd, consisting as the titles suggest of more cartoon type drawings, covering general and Christmas themes, all having been converted from the PC environment. The original package, called 'Cartoon Graphics', was reviewed in the Archive 7.7 p7.

The package

Each package consists of three discs presented in a plastic foldover case. Disc one of each set contains !Sparkplug, the PD read-only version of the archiver by David Pilling, all three discs contain one 'sparked' archive directory containing assorted pictures. When decompressed, these archived files in both packages expand to give you 100 drawfiles, and a total of some 4Mb of data per set.

The drawings

The More Cartoons collection of drawings are based

on office, sports and pastimes, pets, transport and food – very much a continuation of the first set as the name would suggest. The Christmas selection covers the usual food, holly, bells and ribbons type pictures, frames and borders, reindeer and penguins in various winter sport scenes, an assortment of party scenes and a group of different Santa Claus characters. All of the drawings are fully coloured and are in draw format, not scanned sprites. The quality is therefore very good, with all of the drawings without exception sharing the same high standard.

Some examples showing the quality and clarity can be seen below.

Conclusion

My only minor complaint with the previous package was that some of the pictures, when loaded, were zoomed 4:1, but all the pictures in these two packages are in a 1:1 zoom and usually fit full screen, with a couple of exceptions. I would have liked to see a few more nativity type pictures on the Christmas collection, but perhaps that may come on



a later release. As I stated before, for clipart of this standard, I think you receive good value for money. If you have a need for good quality cartoon-type drawings, these packages are for you.

These two collections are available direct from LOOKsystems for £20 inclusive or through Archive for the same price. **A**

PD Column

David Holden

Recent correspondence reveals to me that many readers are unsure of the meaning of the terms *Public Domain* and *Shareware*. In fact, it appears that some seem to be unaware that they are completely different things. When I first began writing this (often irregular) column, one of the first things I did was explain these and associated terms. I was surprised to discover that this was over three years ago, and as there are now many readers who will not have seen that article, I don't think it will hurt to deal with it again.

There are many names used to define the various categories of software that fall within this remit. The most important are:

- Public Domain
- Freeware
- Shareware
- Demos
- Crippleware
- Careware
- Licenceware

These are not in any particular order and there are others but these are the most important and the most common.

Public Domain

The term 'PD' is often mistakenly used as a catch-all phrase to describe any software which can be freely copied, but this is *not* its correct meaning. The term originates in USA, where it has a specific legal meaning. Americans believe that computer software written by a government department or institution, and therefore paid for from the public purse, is the property of the people and, unless national security or similar considerations are paramount, is therefore *in the public domain*. Scientific programs frequently originate in colleges and universities, and as these are publicly funded institutions, such programs can often be freely used by anyone, and are often ported

to other platforms. The widely used Kermit and Spice are examples of this type.

In the UK, the term Public Domain, as it relates to computer software, has no precise legal definition. Most of what is loosely described as PD is actually *Freeware*. There is very little true PD, although the distinction is unimportant for most purposes. Because there is no legal definition of the term, it can mean whatever the user wants it to mean. The most commonly accepted definition is a program to which the author has given up all rights. Once this has been done, it is truly in the public domain and can be used, distributed, altered, or even sold, by anyone.

To achieve this, the author must state 'This program is Public Domain' and nothing more. There can be no conditions. If there are any at all, even something as banal as saying that the author's name must not be removed, then such a statement *reinforces* the author's copyright. This is, in fact, perfectly logical, for if a program is truly Public Domain, no-one has any rights over it, *including the author*.

Freeware

This means a program which the author *permits* to be freely used and copied, but to which he/she retains copyright. There may be conditions attached, often requiring that the author's name is not removed, that no-one must claim any part of it for their own and that it must not be sold. Where such conditions exist, they constitute a *licence* and, provided you respect the conditions, you are licensed to use the program without any payment. On this definition, almost all so-called PD actually falls into this category.

Shareware

This is another often misunderstood term. Most PC users will know exactly what Shareware is, but many Archimedes owners don't. At least, I will be charitable and assume that they are ignorant because the

alternative is that they are deliberately using stolen software.

Shareware is *not* a type of software, it is a way of distributing and marketing commercial programs. By its nature, all Shareware is *copyright, commercial software*. Shareware is just a try-before-you-buy marketing method. The idea is that you can acquire a copy of a program at nominal cost from a library, try it at your leisure on your own computer and, if it does what you want and you are satisfied with it, you send a *registration fee* to the author. Until you have sent this fee, you have *not* paid for the software, only a distribution fee to the library. Quite often, registration will get you an improved version, one with certain restrictions removed, or various other advantages, but the most important thing is that you will then have the right to use the program. Until you register, you only have the right to try the program to see if it is suitable. Often there is a time limit upon this, normally 30 days, although there may be other restrictions as well.

Using a Shareware program outside this period, or using it other than for evaluation purposes, is software piracy, and the penalties are exactly the same as those for any other software theft. Although legally the same, it is, in my view, morally worse than copying conventional commercial software. Although there are many large companies who distribute their wares as Shareware, by far the majority are private individuals. By not sending a registration fee, you are not 'merely' failing to pay a large company a few pounds, but directly depriving an individual of payment for his labours. Not only that, but this individual has done something that the conventional software distributors have not done – he has given you his trust.

With 'conventional' software, there is no trust on the part of the supplier. In fact, the trust is all the other way. You pay your money and 'trust' that the program actually works. Anyone who has then found a program unsuitable or that doesn't operate 'as advertised' will know how difficult it can be to get this money refunded. With Shareware, the author has *given* you a working copy of the program and then *trusted* you to pay if you find it suitable. I believe that failure to honour this trust is unforgivable.

There is a tendency to make the excuse that you 'hardly ever use it' or that you 'forgot' to register. I would ask anyone who has ever made use of a Shareware program not to fool themselves. There is only one honest answer to the question whether you should register. Quite simply, if you use a program, you should pay for it. We have all purchased software at one time or another and then regretted it later, but I don't think I have ever heard someone say that they regretted paying the registration fee for a Shareware package.

Demo and Crippleware

These two categories are very similar. Both are demonstration versions of commercial software. (There is another type of Demo where the word is used to mean an animated graphics display, normally noisy and extremely gaudy and often accompanied by an ungrammatical and badly spelt scrolltext, but I shall ignore that definition for the purposes of this article.)

There is a certain amount of overlap between Crippleware and Shareware. The difference is that Shareware is (with minor restrictions) fully functional and comes with comprehensive documentation. Crippleware has one or more important functions disabled (hence the name) and may have very brief or no instructions. Despite the fact that it often masquerades as Shareware, this separates it from the real thing.

Demos are cut down versions of commercial software with important functions missing. For example, a wordprocessor or spreadsheet may not Print or Save. Games may have only one or two levels instead of the many with the full version.

This is a good method of 'previewing' a program before you part with your cash. Enlightened companies such as Colton Software and Clare's have always produced demo versions of their programs and allowed them to be distributed by the cheapest possible means, that is, the PD libraries.

If you are considering buying any expensive program, I would urge you first to look for, and try, the ones that have demo discs. You are far less likely to be disappointed. If you can't get a demo from a PD library, don't be prepared to pay more than the cost of a disc and postage, although owing to the high

overheads of many companies, this could be round about £5.

Sometimes, you may be asked as much as £15 for a crippled, demo, version. Think very hard before you pay this, even if you are told that it will be refunded when(!) you purchase the full program. Ask why you are expected to commit yourself to this expenditure merely to *try* the software. Remember that demo programs are really just a sophisticated form of advertising. If you were buying a new car would you have confidence in a dealer who wanted to charge you a couple of hundred pounds for a test drive?

Careware

This is a 'catch all' term now used to mean almost any software where a large proportion of the proceeds are donated to charity or other worthy cause. An example is the Archive Careware discs (*now only distributed by APDL - thanks, Dave! Ed.*), most of which contain material obtainable from any PD library, but where £4 of the £5 price goes to charity. Sometimes, it is a variation on the Shareware theme where the registration fee is sent to a charity instead

of to the author, or the author may donate part or all of the fee.

Licenseware

This is not really part of the PD/Shareware scene, except that such programs are frequently sold through PD libraries because of their low overheads. Licenseware is low cost commercial software, minus the fancy packaging and advertising which makes up a large part of the cost of most programs. A proportion of the price paid to the library is then passed on to the author.

Special Offer

As I haven't discussed any particular programs this month, I shall repeat last month's special disc. This contained the latest version of the *Zap* text editor, *TempleEd*, *BLib* and some others. This was very popular, and past experience shows that many readers complain later that they 'forgot' to send for a copy, so here is your last chance to get these essential programs at a bargain price. Just send £1 or four first class stamps to the APDL address and please ask either for 1.6Mb or 800Kb discs. 

CD-ROM Column

Andrew Flowerdew

Welcome to the CD-ROM column. I hope that this column will become an important part of Archive as I am sure that CD-ROM technology will be increasingly important for all Acorn users as time goes on.

When I offered to help with the CD-ROM column the first thing Paul asked was about my experience with the technology. Well, I run the IT Department at Dulwich College Preparatory School, Cranbrook, which has over 500 pupils in three different parts of the school. We use a wide range of Acorn computers, from ageing A310s to brand new Risc Pcs many of which have access to CD-ROMs across our network. I like to think that we are moving steadily towards a system of what I call 'Martini Multimedia' (anytime, any place, anywhere), where pupils and staff have access to powerful multimedia software wherever and whenever they want it. Several members of the staff have offered to lend a hand with the background work needed for this column and, along

with one or two other Archive members who have also offered their assistance to Paul, we hope that we will be able to cater for the needs of schools and the individual user.

I'm not really sure what format you would like this column to take but, to get the ball rolling, I thought I would try to include the following features:

- a general introduction to CD-ROM technology
- a section about new developments
- a section on the technology involved, including reviews of CD-ROM drives
- a section about CD-ROM discs
- a section answering readers' questions

New developments

There are several hot new developments on the CD-ROM networking front. Acorn, Cumana, Eesox and Digital Services are all touting CD-ROM serving solutions and they all look potentially very good. I recently had Digital Services over to talk about supplying the IT requirements for a new teaching

block and while they were here, they demonstrated an early beta version of their CD Server.

I will not go into the technical details of CD Server now, as it is still unfinished, however it was very impressive. (*Sad to say, it may never be finished as Digital Services have recently gone into receivership.* Ed.) We run a mixture of networks at DCPS and the chaps from Digital showed me five machines running the same IReplay file from a single CD-ROM without any problem at all on our computer room Ethernet segment. Even more importantly for me, the CD server also worked down our fibre link to our Lower School, through a gateway machine and across the Lower School Econet. This is important where schools may be extending their networks gradually and may still have segments of Econet lying around. True, you can't run IReplay over the Econet but there are plenty of CD-ROMs which can, including CD-ROMs with collections of clipart.

Digital's CD-ROM Server was not available then and so I have been using Net CDFast from Eesox which allows you to set up a cache on your server machine so that any frequently asked for files do not have to be constantly read from the CD-ROM over and over again. With NetCDFast speeding up the CD, and Acorn's Application Accelerator sending the data down my Ethernet, I manage to get acceptable speeds for most of my CD-ROM applications. I have not done any tests yet but I will try to during the last week of term in order to give you some idea of how efficient it is.

More recently, I have been testing Acorn's forthcoming Access CD Server which is very easy to set up, works very quickly across the net and is very stable. I aim to do some comparative tests of the Acorn and Eesox systems for the next column.

CD-ROM drives

I use two Toshiba drives, the 4401 and the 3401, with the driver software from Morley. The 4401 has a motorised tray and does not need a caddy, while the 3401 is faster but uses a caddy system. Both work faultlessly with a combination of CDFS 2.21, the Morley driver and Net CDFast (and now Acorn Access CDS). I mention the combination of software because, in the past, some software did not always work with combinations of other software.

CD-ROM of the month (possibly the year!) – Exploring Nature CD-ROM

The interactive CD-ROM which has really pointed the way for others to follow must be "Exploring Nature". It allows pupils to explore many different types of habitat and learn about the methods which can be used to study those habitats.

The application is very easy to use, even for the complete novice and younger user. It allows you to move around a series of pictures showing different habitats and you can search for things to study by moving the mouse pointer around the scene. When the mouse pointer changes shape you click <select> and another, close up, picture pops up, showing a particular feature of the habitat.

You can make several different measurements within a habitat using the Toolbox which pops up when you press <menu>. All the main tools which I use when doing nature study in science lessons are there – thermometer, pH meter, sunshine meter, rain gauge, compass, etc.

The graphics are stunning, the content is superb and the use of the mouse to move around and access various tools is excellent. Even better, you can copy the application across to a hard disc and run it from a faster device – I have a copy on my Risc PC at home so that I can plan my lessons. My only gripe is the cost – at one hundred and twenty-five pounds, it is a very expensive buy for most schools and individuals. However, when it can be served across a network, its cost per computer comes down to a more reasonable figure.

(Good news! Exploring Nature CD-ROM is available through Archive for £88! No, we haven't worked a discount – they have brought the price down! Ed)

Readers' questions

Obviously there aren't any this month so I'd like to pose a question for you. What do you want from this column? Send your replies to me, Andrew Flowerdew, CD-ROM Column, c/o DCPS, Cranbrook, Kent TN17 3NP or via e-mail on abf@dcpscran.demon.co.uk.

Anyway, that's all for this month. Next month, I'll have a longer look at the anatomy of a CD-ROM drive and another CD-ROM to watch out for.

PS. This first column was drafted some time ago but I found myself with several large projects. Worse, I had made contact with several people who had offered to help with the column and had recorded their names and phone numbers on a small electronic organiser. Disaster struck and I lost the

organiser along with all the names and addresses. So if you offered help, please write to me via snail mail or e-mail. And the moral of the story is... either use a paper diary along with your tiny organiser or buy a Pocketbook II and back up your data. **A**

Spreadsheet Column

Chris Johnson

Eureka

I've had a few letters and e-mail comments with feedback about Eureka, but not as many as I thought. Does this mean that users are not upgrading, or that they have no comments? Some comments still repeat familiar themes. Print preview (or lack of it) raises hackles. I had a brief note from Richard Readings, who wrote an article about Eureka in Archive 8.5. He reminds me about the existence of the PD application RiScript, which is a PostScript viewer. To make use of this utility, it is necessary to print a PostScript file to disc, and then preview it using RiScript. It works but it shouldn't need to be that difficult to find where page breaks come.

Two of the other recurrent themes are lack of speed and lack of 'standard' RISC OS behaviour, e.g. the way the adjust mouse button operates (or doesn't). Eureka does seem slow compared to other RISC OS applications. I have found that redraw becomes very slow when using lots of cell borders to improve the presentation aspects. It would be useful if cell borders (as opposed to the grid lines) could be toggled on and off, so that, for general use, the redraw was speeded up, but they could be switched back on for printing.

File import and export using foreign formats such as Excel and Lotus 123 appear to work reasonably well, although tinkering with the files is sometimes needed. For example, import and export of Lotus 123 files works well. One correspondent found that exporting the data as an Excel file and then importing it into Lotus for Windows version 5, resulted in the colour assignments being changed. Not too important you might think, but black text on a black background is not too user-friendly! Is it asking too much to expect that three different applications

would agree the exact file format? The same correspondent would like to be able to justify text across more than one column. Excel and 123 can do this, as can Resultz and Schema, but not Eureka.

One of the postgraduate students in my own department has been converting all his three years' accumulation of Eureka sheets to Excel because he has bought himself a PC for use at home. (He did not think an Acorn system would be much use once he graduated – the usual problem of industry standards – I try to brainwash the students but without a lot of success.) He has had little trouble in general, but ran into some problems with sheets that had macros attached. Excel seems to spit out some of the Eureka macro constructs, and some minor changes were required before the transfer was completely successful.

While I was playing with a few PC files, I found one which was a simple TAB-separated file. I could find no way of persuading Eureka to import it. This seems remarkable, since TSV files still seem to be widely used in the PC world, particularly by database type applications. The only solution I found was to load the file into Deskedit, replace the TABs with commas, change the file type to CSV and then load it into Eureka.

On the other hand, I used Eureka as an intermediate file manipulator, when converting some Beebug Masterfile files to incorporate the data into an existing Datapower file of rather different format. It was the first time I had used Eureka as a string manipulator, and I was quite impressed. On previous occasions, when faced with similar conversions, I have resorted to a bit of Basic programming.

After enthusing about OLE, it appears that this does not work with TechWriter, which also supports OLE. Do we have multi-standards for OLE now?

Eureka does not appear to be WYSIWYG all the time. David Wight reports that one of his spreadsheets had characters in a column cropped on printing, although they were all displayed on the screen. This happened to me on one occasion, so it is not an isolated occurrence. I dug out a copy of my own sheet, one of last year's laboratory classes, and tried it with Eureka 3. Sure enough, the cropping still occurred.

It's not simply minor rounding errors between screen and printer. On screen, there are definitely a couple of pixels between the end of the text and the cell border but, on printing, almost the whole of the last character (an upper case one at that) is truncated. Casting my mind back to the early stages of this column, around the time Eureka 2 was released, Paul passing me a note on this same topic from something one of his customers had written. At the time, I had never observed the phenomenon and could not make any sensible comment.

The odd thing about my sheet was that it was all right when first set up. Since it was in use daily for about twelve weeks, and was printed only occasionally, it was difficult to be sure when the problem arose. However, I think it might have occurred after I had made some changes to the normal style in the sheet. I would be very interested to hear of any similar occurrences, since this would appear to be a bug that has persisted through quite a bit of development.

How to contact me

My postal address is Chris Johnson, 7, Lovedale Grove, Balerno, Edinburgh, EH14 7DR; I can also be contacted by e-mail as checaj@uk.ac.hw.vaxb.

I am happy to receive anything in connection with spreadsheets, hints or tips, macros, problems, solutions to problems or just requests for help. What would be of interest are examples of unusual uses of spreadsheets. **A**

MouseTrap

Richard Rymarz

MouseTrap is described by its authors, Design Concept, as "a mouse filter for twitchy fingers". It comes on one disc containing the program !MouseTrap, !Sysmerge and a !System folder.

MouseTrap has already been reviewed by Dave Walsh (Archive 7.10 p66) but Design Concept wanted a second opinion on the latest version.

Aims

MouseTrap is designed to give the user complete control over the use of mouse/trackerball or any other input device that may be connected to the Acorn range. It is primarily aimed at schools where children have difficulty pressing the correct button on the mouse, or who have trouble holding down a button while dragging a window or application across the screen. It also provides for left-handed users by switching the <select> and <adjust> keys.

Installation

Clicking on !MouseTrap results in an appropriate icon appearing on the right hand side of the icon bar. Clicking <select> opens a simple window that is

easy to understand. All options are simple to effect. There is even an opportunity to switch off all the mouse buttons. However, the mouse pointer is still effective within the MouseTrap window – no possibility of disabling the machine. There is also the option of holding down the Alt key which temporarily makes the buttons behave normally.

Latching

A final feature for the non-technical user is the latching option. When switched on, any <select> or <adjust> operation is picked up by MouseTrap and continues that operation for the user. A beep from the computer indicates when the latching begins – another beep indicates when it has ended. The beep is useful (and answers one of Dave Walsh's suggestions) although the time delay is still not user-definable (another of Dave's points). However, in use, the latter is not a major problem.

In use

MouseTrap works. I've introduced it into my school and the children don't even realise that it is running. Young children particularly benefit, as do harassed teachers, since disabling some mouse operations can

stop the endless number of menus that often confuse. Many of the programs that children use now are icon driven and require less use of <menu> or <adjust> buttons. Latching is also very convenient, allowing novice, poorly coordinated and less confident users time to learn normal mouse operations.

Conclusions

There is a place for this utility in all schools not only for its targeted audience, but beyond – I have even used it with my elderly in-laws who had never touched a computer before and enjoyed playing the game of patience included on the Acorn Apps disc. It is not necessary for most children who quickly pick up how to use the mouse.

The manual is short, well written and easy to understand and, for the more technical, there is the option to install a relocatable module which automatically loads MouseTrap. This is fully configurable.

The program is robust and always allowed me to control normal desktop operations. However, it does take up 128Kb and quitting stops all trapping operations. This may result in memory problems on 1 or 2Mb machines. (In other words, memory cannot be reclaimed by quitting the application as, for instance, can be done with !Printers.)

MouseTrap works on any RISC OS computer, including the Risc PC, on which this review was written. It costs £10 inclusive (+£2 p&p) from Design Concept.

Recommended, but teachers should think carefully about its use as a substitute for employing the full functions of the mouse. Finally, perhaps further versions could include a latching time delay which can be user-defined and memory that can be reclaimed. **A**

Gerald's Column

Gerald Fitton

I suppose the biggest news on the Fireworkz front at the moment is that Fireworkz Pro is now available, so that must be my major topic for this month. Before tackling Fireworkz Pro, I must cover the single topic from my bulky correspondence which has overshadowed all others.

Acorn's standards

I was going to head this section 'dongles, etc' but it occurred to me that if I did so, many of you would either skip this section or even skip 'Gerald's Column' altogether – as if you would!

I've had a few more positive letters referring to use of dongles and other non-standard hardware (e.g. the printer lead which comes with Turbo Drivers) as simple cost-effective methods of keeping piracy at bay and hence reducing the cost to genuine purchasers. Usually, these people make a point of the fact that they've had no problems (and I believe them). I've had even more letters (some at second hand sent to other Archive authors) who complain at length and in detail, particularly about dongles. The quantity of mail on this subject has overwhel-

med my 'system', so let me apologise if I haven't sent you a reply yet. (Let me add that all who sent me a stamp *have* had a reply!)

Now that you've had your say, here is a summary of my advice to you; let's see if we can make it the last words on this topic. It concerns standard and non-standard hardware and software rather than anything specific like dongles.

Many pieces of hardware and software on the Acorn market follow Acorn's guidelines either completely or closely. If you buy just those items, you'll find that, as you gradually develop your system by making new purchases or upgrading 'old' hardware and software, everything continues to 'work' nearly all the time. Even when they don't work, the problems are usually sorted out promptly and with a minimum of fuss. An example of such a problem with Fireworkz on the Risc PC arose when Acorn upgraded its sprite specification to include 24-bit sprites. This was sorted out quickly by Colton Software issuing a new TaskX module for Risc PC users. Fireworkz Pro checks what version of the Operating System you have and loads the appropriate TaskX module automatically.

On the other hand, if you buy something which is non-standard and there is a general upgrade, (a) you may find that the non-standard item you've purchased still works and works well but (b) some other piece of (standard) software or hardware ceases to function (or worse, generates an intermittent fault)! An example is that Turbo Drivers have caused many crashes in both Fireworkz and PipeDream (but Style and Artisan work perfectly). When that happens, you will find that the supplier of the item built according to Acorn's standard (e.g. Fireworkz) will be mystified. Sometimes they'll blame Acorn but generally it will be only after some time has elapsed that the real culprit (and a solution) is found.

Hence my advice is to look at the benefits you will gain from using a non-standard item and decide whether these benefits outweigh the future problems which may be created. On this basis, I have rejected Turbo Drivers but accepted Style which I believe is the definitive desktop publisher and which I prefer to Ovation. I have Publisher as well as Style but, only because of the dongle, I have relegated it to my A440 (RISC OS 2) machine. I use Publisher occasionally when I have need of a feature (e.g. guide frames) which it has and which Style doesn't have.

Before you write to me saying that Style doesn't use a dongle and ask "What are you talking about when you imply that there is something non-standard about Style?", let me ask you to look in your !System directory. There you will find that Computer Concepts have inserted their own !CCShared directory. The recommended method of including any modules specific to an application, utility or package is to place those modules within the specific application directory (e.g. in !Style) and not in !System. I do not know what potential problems this creates but I'll bet we haven't heard the last of the unwanted effects of !CCShared's contents! However, Style is so good that I've decided to take the risk and hope that I won't regret it.

Fireworkz Pro

The version of Fireworkz Pro which I have is 1.20. Fireworkz is still at version 1.07 and an upgrade to this version is not yet available.

The press release from Colton Software gives the price as £149 + VAT but, if you don't have any of

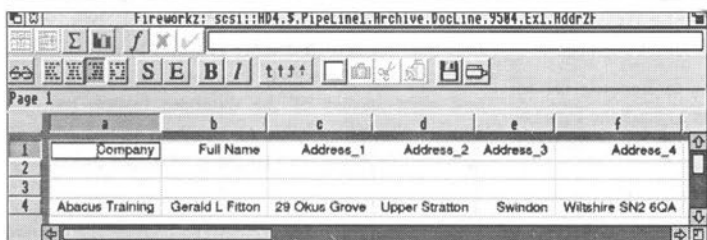
Colton Software's products and want Fireworkz Pro, you will find it is available at a lower price from NCS (£165). If you have Fireworkz and want to upgrade to Fireworkz Pro then you can do so for £49 but only directly from Colton Software. If you only have Wordz, the upgrade is £89; from Resultz it is £69; from PipeDream 4 it is £99; and from PipeDream 3, £124. To these prices you must add VAT and £5 postage. Further details about these products are available from Colton Software on telephone number 01223-311881 or on fax number 01223-312010.

Recordz is available as a stand-alone database for £99 + VAT, but cheaper from NCS (£110). Recordz and Fireworkz Pro use a database 'engine' called DataPower. DataPower was given a mini review by Simon Coulthurst in Archive 8.6 p45. In that article, you'll find that DataPower is compared favourably with other databases. I don't wish to repeat details given in that article so I'll skip that by quoting one line: "My final choice is DataPower". My 'final choice' would be Recordz (or Fireworkz Pro) because it has practically all the functionality of DataPower but without the software protection method about which Simon comments unfavourably.

What I shall concentrate on in this article is the way in which Fireworkz Pro integrates features from the DataPower database engine into the Fireworkz suite. Using two sets of examples, I'll try to show you how these database features integrate with Wordz, Resultz and Fireworkz (non-Pro).

When do you use a database?

As an over-simplified general rule, most of the things which you want to do with a database you can do with a spreadsheet such as Resultz! If you use a spreadsheet as a database, the usual way of doing so is to use one row per record and one column per field. In the screenshot below, you will see a four-line database in what I shall call Resultz format. It is part of the file *Ex1.Addr2F* from this month's Archive disc. The first row contains the column (field) headings. I have a total of 21 columns which run from column a to column u. The rows 2, 3 and 4 are space for three separate records. I have completed only the fourth record. You can add similar



records into the second and third rows or add records after my fourth one.

When you have your records in Resultz format, you can sort them by any field (column). In the same document or, more often, in a dependent document, you can select fields from any record. A typical application might be to pull from your database, the address to which you want to send a letter when you are given only a name. To do this, you use the lookup(,,) function of Recordz.

So when do you use a database rather than a spreadsheet? The over-simplified version of my rule book (the beginner's version) contains "If you have only a few fields per record and what is important to you is that you want to scan the same field in many records (i.e. compare fields), you should use the spreadsheet format." In this context, by spreadsheet format, I mean the Resultz spreadsheet format and not the Recordz spreadsheet format. The second part of this rule reads "If you have many fields for each record and what is important to you is that you are able to look at and compare many fields of the same record, you need a database card format."

Let me give an example where a card layout is more easily read than a sheet layout. The first is a set of student records. You might wish to look at all the fields for a single student to see how their work, attendance, etc, compares from subject to subject. If you wanted to compare one student with another, but only for one subject, the sheet layout would be easier to read.

To summarise: Recordz database facilities will be most useful to you if you have many fields (rather than few) and if you want to see all (or most) fields, but for only one record (or a few) at a time. If you have few fields and want to compare one record with another, you should consider the Resultz

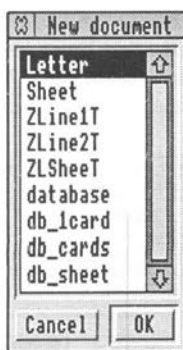
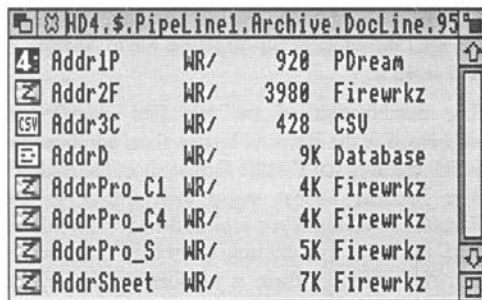
format (which is the same as the spreadsheet of the non-Pro version of Fireworkz).

File conversion

Let's start with an obvious one which may be of use to only a few of you. If you have the DataPower database, you can transfer files between DataPower and Fireworkz Pro or Recordz.

Many more of you will have databases in either PipeDream or Resultz format. If you have Resultz, what you might expect is that data held in Resultz format would be automatically accepted by Recordz. This is not so; you need to go through the intermediate stage of using the CSV format.

In the following paragraph, I refer to files in the Ex1 directory of the Archive monthly disc. Even if you



do not have that disc, you should be able to follow the descriptions of the package given in this article.

The method of transferring files to Recordz (or to the database of Fireworkz Pro) is to load the PipeD-ream (e.g. *Addr1P*) or the Resultz (e.g. *Addr2F*) format file into PipeDREAM or Resultz and then save the file in CSV format. The CSV format file *Addr3C* has been created in this way. Drag the CSV file to the Pro icon on the iconbar and select the *db_sheet* template (see the screenshot overleaf).

If you do this with a copy of the CSV format file *Addr3C*, (don't use the original and don't try to do it by loading the file from your Archive disc) you will find that a database format file called *Addr3C.f.d* will be saved automatically to the same directory as that from which you loaded the CSV file. The screen will display a Recordz format file called *Addr3C.f*. You don't need *Addr3C.f*, so discard it!

What I did next was to rename the *Addr3C.f.d* database file as *AddrD*; you'll find it in the same directory as the CSV file. Then I dragged *AddrD* to the Pro icon and selected the template *db_sheet*. I changed the name of the displayed file to *AddrPro_S* and saved it.

The combination of the two files *AddrD* and *AddrPro_S* is the Recordz format sheet combination which replaces the Resultz format sheet file *Addr2F*. The Recordz format might look similar to the Resultz format but if you look at the two files side by side, you'll see that the button bars are quite different. For example, there is no formula line in the Recordz format display.

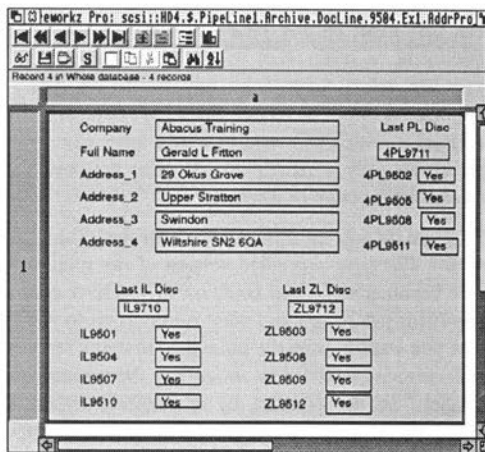
The sheet layout

Click <menu> on the displayed *AddrPro_S* document and select the Database - Layout menu. Within the Layout menu, you'll find a Rows Auto radio button. Deselect it and change the number of

Rows to 1. When you click on the OK box, you'll find that the screen display changes to a single line. You can move through the database using the left and right arrows of the database button bar. Of course, you can display as many or as few rows as you wish by using the Database - Layout menu.

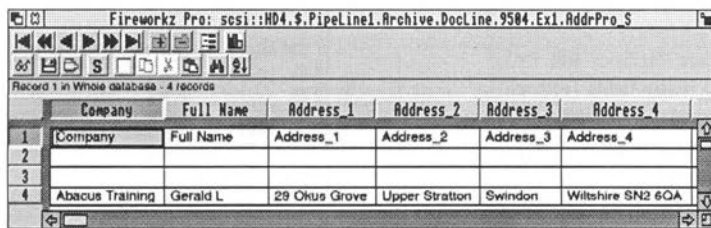
The card layout

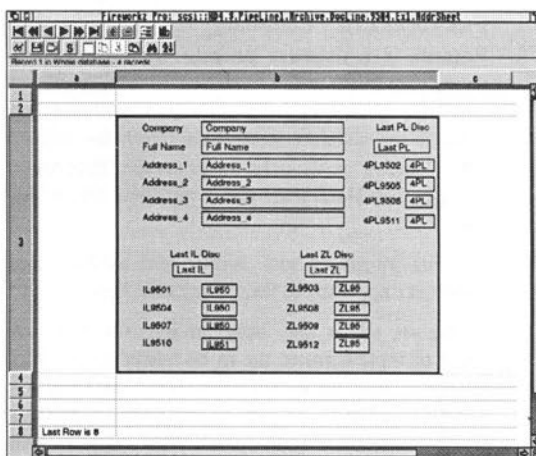
You can use the Layout menu to change the display to a card layout. I suggest that you investigate what happens when you change the number of rows and columns for the layout.



Starting from *AddrPro_S*, I changed the layout to a single card layout and then saved the displayed file as *AddrPro_C1*. The file *AddrPro_C1* is a four-card version. Both of these card displays will look different from the one which you have created. This is because I have moved the fields and field names around on the card so that I can see more at once. You move fields and field names by double clicking on the field and then dragging it as you would an object in a drawfile. I find the tools available for doing this a bit rudimentary compared with tools

available in DrawPlus. Before you ask me, I can't find a way of using DrawPlus to create card layouts.





Recordz cards into Resultz format sheets

Load the file *AddrSheet*, and you'll see that I have a single card display in cell b3. Unless something has gone wrong, you should find that the cell b3 is selected. Perhaps the best way of thinking about this combination is to think of *AddrSheet* as a conventional Resultz sheet but with the Recordz database file *AddrD* loaded into, and contained within, a single cell (b3), of *AddrSheet*.

If you click on any cell except b3, you will find that the button bar is what I shall call the Resultz button bar. Yes! I know it looks different from the 'old' Resultz button bar but I expect that, when the next version of Resultz (or Fireworkz non-Pro) comes out, the button bar will be like that of Fireworkz Pro. If you click on cell b3, you'll find that the button bar changes to what I shall call a Recordz type with the database buttons.

When you are 'in' a database cell, all the database functions can be used. When you are in a Resultz cell, the database functions cannot be used! I've tried inserting two different databases into different cells of the same Resultz sheet with reasonable success.

What inevitably causes a complete crash is trying to change the Layout (using the layout menu) of a database within a Resultz sheet.

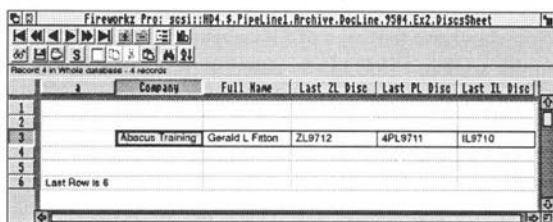
However, you can change the position of fields and field names and then save the new card.

I was disappointed to find that *AddrSheet* did not save the record number which was being displayed at the time of saving. For me, that would be a useful additional facility to include in the next version.

Recordz sheets into Resultz format sheets

The files to which I refer below are from the Ex2 directory of the Archive disc.

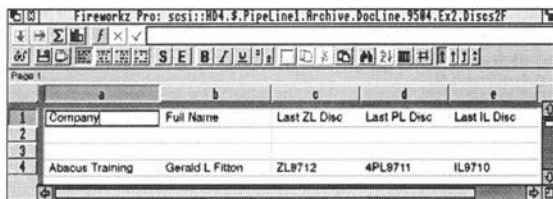
The screenshot below shows a Resultz format database consisting of four lines. The fourth line contains a single record. I have saved this Resultz-type database as a CSV file and then



dragged the CSV file into a Fireworkz Pro db_sheet template. I reduced the db_sheet to one row and saved the result as *DiscsPro_S*. I loaded this database file into a Resultz-type sheet to create the file *DiscsSheet*.

In *DiscsSheet*, I have a single record displayed in row 3. In the same way as the previous section, you might think of this combination as the whole of the database file *DiscsD* loaded into, and contained within, the block b3f3 of the *DiscsSheet* display.

It is the database file *DiscsD* which is loaded into *DiscsSheet* and not the file *DiscsPro_S*. If you want only *DiscsSheet* (containing the database), you can safely delete the file *DiscsPro_S*, but you must not delete *DiscsD*.



You will find that, as in the previous section, when you are 'in' a database cell, the button bar displays database buttons and when you're 'in' a Resultz cell, the button bar shows Resultz type buttons.

I had hoped that somewhere else in *DiscsSheet*, such as in slot b6, I could enter a slot reference to a database slot which would change 'automatically' to follow the changing field in the database. When I tried this, all seemed to be well right up to and including saving the file. However, when I reloaded the file *DiscsSheet*, it was always corrupted. Have a go, and you'll see what I mean. This is a 'bug' which will be fixed in a later release of Recordz and Pro.

In a similar way to the previous section, the record number is not saved by *DiscsSheet*. I would like to see the record number saved with *DiscsSheet*.

Non-database features of Fireworkz Pro

In this section, I shall briefly describe changes from Fireworkz which have nothing to do with the database. It seems likely to me that these features will become part of the next version of Fireworkz (non-Pro).

There is a new button bar. The icons are smaller and the status line is now in Homerton rather than System font. If you don't have a multisync monitor, you may find this change more difficult to read. I've had correspondence to that effect. On the plus side, the smaller icons don't use up so much of the screen.

You can now edit within a cell rather than at the formula line. I find this a mixed blessing because I sometimes lose Styles (and Effects) applied to that cell and I have to reapply them. Cell types (i.e. text or numbers including formulae) are recognised automatically.

Something so many of you have asked for is now included - negative numbers in red. This is achieved by allowing you to specify two different Styles for positive and negative numbers.

The dialogue boxes for Names have been extended to include a description of the Name.

There are also features which will help file transfer from RISC OS to Windows, such as an XLS (Excel) format loader.

Fireworkz Pro - Summary

Recordz is a database package which looks and works very much in the same way as the DataPower database, recommended by Simon Coulthurst, but without the software protection which he disliked and regarded as its only major 'fault'. Recordz is cheaper than DataPower and is my "best choice" for a database.

Recordz integrates with Wordz and Resultz (and Fireworkz non-Pro) to form Fireworkz Pro.

There are still a few 'bugs' in Recordz and Pro. Most of these seem to me to be related to the integration of Recordz within Fireworkz. Even now, you can hold databases in card or sheet format within a Resultz-type sheet. Later, you will be able to make it 'pull' references from the database into a Resultz-type sheet.

So far as use is concerned, I can see that the addition of Recordz database facilities to Fireworkz (to make the integrated package Fireworkz Pro) will be useful for those databases which contain too many fields to fit into Resultz-type sheet layout. However, I would still stick to the Resultz type of sheet for those databases of mine having few enough fields to fit them across a screen.

I would very much welcome your views and experiences of Fireworkz Pro. In the meantime, if you find any 'bugs' or differences from Fireworkz which you consider a 'downgrade', please send an example on disc to Colton Software direct and, if it's not too much trouble, let me know the response from Colton Software, and the outcome.

Finally

My address is that of Abacus Training, which you will find on the inside back cover of Archive. I prefer letters on disc, together with a short written note describing the nature of the contents; please do not try to describe a problem or feature without an example file on disc, since it is far too easy for me to misunderstand what you mean. All discs will be returned, but it will happen more quickly if you include a self-addressed label and (if you live in the UK) a stamp for return postage. **A**

Three Animation Programs

Christopher Jarman

This review looks at three animation programs: EMConvert from Uniqueway, PrimeMover from Minerva and The Complete Animator from Iota Software.

EMConvert

I have been interested in making films since the day I bought an 8mm movie camera in Aden, 40 years ago. Since then, it has been the camcorder, and now my amateur enthusiasm turns to Acorn Replay and Ace films.

Many readers will, by now, have seen demonstrated the rafts and the underwater scenes of the Risc PC Acorn Replay demo. Coupled with the CD quality sound, they are very impressive. I have longed to make one of my own and to drop it into a multimedia program like Genesis to surprise the viewers. Well, for £29 including VAT, you won't achieve quite those heights but you can certainly amuse yourself with a little animation!

An exciting start

According to my wife and most of my friends, I am well past my sell-by date in most areas. Nevertheless, when I heard about !EMConvert and ordered it, I became as excited as a teenager on his first date, waiting for the post to arrive. I'm sure you recognise that feeling! Will the goods be as "good" as the adverts claim? I had rung Paul Middleton of Uniqueway to ask if it really was true that you could make a tiny animated film with just this utility. Did I need an expensive card from Computer Concepts or Wild Vision to work it? No. Did I need a special camera? No. Did I need any other peripherals or programs? No. But surely, I asked, I must need something else... No, just the ARPlayer which is pre-installed on my Risc PC anyway. So no extra expense there.

When !EMConvert arrived, I loaded it in and had a look. There is the usual Helpfile and a single sheet of green A4 paper for documentation. To tell the truth, I was disappointed at this point, because I am the kind of operator who needs a complete step-by-step,

total Noddy introduction to any new utility. Clever programmers never seem to realise how strong this need is. I believe that many excellent utilities still lie unused because the buyer cannot understand how to get it started, and is too busy or frustrated, and finally too embarrassed, to ask.

Just drop in some Artworks files?

Anyway, it seemed from what I read that one needed a stash of sprites to feed into this thing before it could be seen to work. I am most at ease with Artworks for making pictures, so I drew a background of a house and moved one or two objects about in front of it, stopping to save the images as drawfiles each time, until I had about twelve pictures. It said that the film speed would be at a default setting of 12.5 frames/sec, so I sussed that one second's worth of film would not be long enough. Therefore I went back and copied each drawfile to double the number. It was easier than drawing more new ones.

This was my first mistake – EMConvert doesn't accept drawfiles and will only take sprites! Fortunately, Paul Mason's PD utility !DrawGrab came to my rescue. It converts drawfiles to sprites. Also, it is quite easy to use the snapshot facility in !Paint to create sprites.

Just drop in the sprites?

Having achieved this, it was simple to drop the newly minted sprites into !EMConvert but still no result. A closer reading of the helpfile at this point revealed that it desired me to drop a directory full of sprites into it and not the individual sprites. I cannot remember being able to do this with any other program, so naturally it had not instinctively occurred to me. This is another reason why better and rather more 'Keystage 1-type' instructions are vital.

Drop in a directory of sprites!

When I finally dropped this directory full of sprites onto the icon, things happened. I had only to select Convert in the dialogue box and away it went. After a short time, an Acorn Replay icon popped up with the name of my directory on it as the film title. This was saved, and with some trepidation, I double-

clicked on it to see if I had made a tiny film. It was absolutely true – I had!

A film at last!

Admittedly, "Gone With The Wind" was longer, and Meryl Streep was not my star, but it was definitely a tiny movie. It was perhaps best described as TitchyScope but it was original and it was my own. I would have let you all see it... but I accidentally deleted it!

!EMConvert is a superb product and surely one of the best value programs of its kind on the market. My request to Uniqueway is for a better step-by-step instruction manual with suggestions for ways to use various art programs and camcorders and some handy tips.

Films galore

I have now made several small films of between four and six seconds in duration, using digitiser grabbed shots from a camcorder, and using images painted in Studio24, as well as Artworks. It is also quite easy to combine all three methods. It is a long process making your animations, because you need 50 or 60 sprites. My tips are (1) always number them with three figure numbers starting with 001, otherwise, after 9, you get into trouble with the order. Secondly, you can easily stretch the number of sprites out by copying them once or twice – a great time saver. In which case, you can then number the copies as 001a, 002a and so on.

Titles and endings lend themselves particularly well to animations. But all these little films are very memory hungry. You probably need the Risc PC to make use of this without becoming rather frustrated. You need to think in terms of almost 2Mb per film. This means that it can be hard to get one onto an HD disc but they do compress successfully in ArcFS.

I shall be getting out the plasticine tomorrow to make some of those little people animations. And I am told that the advert on the telly for the Post Office was done with the same technique using watercolour paintings.

EMConvert is available from Uniqueway Ltd. and costs £25 +VAT.

PrimeMover

An entirely different approach to animation is taken with this package. It comes with a nicely ring-bound 90-page manual. Having asked for a manual, I now found I had one with a vengeance!

It is not too difficult to get this program up and running quite smoothly, showing the demo animation provided on the screen. There is a tutorial section from pages 19 to 35 in the manual which you are advised to follow first. This is intended to help you dissect the Minerva animation and to see the way in which it is made up.

Then the problems started

However, after that it is downhill all the way. Call me 'cybernetically challenged' or call me just plain thick, but after a month I am no nearer producing my own animation with this package than when I started. Well, actually, I have managed to get one flickering sprite to crawl painfully across another sprite in the background.

The manual states that 'PrimeMover is a very easy-to-use and flexible program'. In my view, it is not. It is extremely complicated. Not only are there many new concepts introduced, such as animates and motions, current time markers and current time indicators, time rulers etc, but the choice of menu systems and windows is extensive and complex. On phoning the company for some guidance, I found little response to my request.

An intuitive package?

The package itself is far from being intuitive. I suppose a majority of enthusiasts work out most new programs by trial and error. With PrimeMover it may well be possible, but not by this reviewer. So, faced with an incomprehensibly difficult and long-winded manual, and my inability to make a film intuitively, I have had to put this program on hold.

I must say that this state of affairs is not helped by the title and design of the demo film which is called "Depressed"! The artistic quality of the sprites is well below average, and the theme simply begs for the whole thing to be shoved in a drawer for another day.

Surely, a demo film, from any sales psychological point of view, must give an impression of hope, interest and fun? If Minerva want to both inspire and instruct, they need urgently to re-make the demo and re-write the manual. I have tried hard to be fair and have had all three animation programs on my hard disc for well over six weeks now, alternating between them, but I have found myself getting up in the mornings and trying to avoid yet again taxing my brain with this particular product. I don't enjoy being so critical about work which someone has clearly slaved at for many months. I am the first to admit that I could not write any programs at all. But I am a user, and I want more and more user-friendly programs and manuals before spending my money.

PrimeMover, from Minerva Software, costs £69.95 inc VAT or £66 through Archive.

Complete Animator

This program is utterly different in concept from both the previous programs. It comes in a glamorous box with an instructional VHS video and a thirty-page User Guide. I took advantage of Iota's Christmas offer which saved money but it meant that the user guide was still a draft version. Iota were very responsive to some suggestions over the phone about the guide and I have every hope that it will be even better soon.

The working arrangement is in the form of a small screen (which is re-sizeable) with a toolbox on the left and controls along the bottom – not too many tools, and extremely intuitive to anyone familiar with the usual Acorn system. It is possible to draw anything you want directly onto the screen and to select and fill colours just like a simple paint program. However, I soon found that creating "stamps" of objects in other programs, such as Paint or Artworks, was by far the easiest way of getting good quality images to play with. The program is completely Artworks-compatible by the way, a great advantage these days.

Getting started

It was quick to get started and, using the animations and sounds provided, to get your first film up and running. The video was a help in giving ideas and

general familiarity with the controls. I have to admit that I react badly to cartoons both in clipart and animations but, nevertheless, by following the first five pages of the guide, it was easy to use the little drawings provided.

Getting to grips with adding sound effects was hard at first, and the guide was a little vague in this area. But once mastered, the sound facility is so excellent that it transforms even small lengths of animation. There are only a few sound samples given you but, because the sound effects editor is so good, you can make an enormous number of variations from them just by altering the pitch and time, etc. Creating stereo accompaniments to follow the motion across the screen is fascinating. It is also easy to drop your own Armadeus sound samples into the system. You can either make them yourself with the Oak Recorder or similar equipment, or use some of the many samples now available on PDCDs.

Documentation

There is some real help in the video and the guide on the principles of cartoon animation. The author, Stuart Payne, is clearly not just a programmer but someone who is enthusiastic about animation generally. This comes through strongly in the whole package. However, in my view, the guide needs to give more explanation and guidance about the ways to work the program and on the meanings of some of the technical terms used, and to avoid assuming that the reader knows as much as the programmer.

For example, there is a very useful facility for dropping a background sprite in for the whole film – but it does not explain that this can only be done after the film is completed! This is rather an important omission which was impossible to find out without a phone call to Iota. Also, I have still not puzzled out how to change the background paper colour in the frame, although I have done it by accident several times. Like a number of facilities in this program, they are described but not explained – there is a difference.

A multi-faceted package

The number of features is high and they are very good ones. It is even possible to print out your animations as flick-books! There are various fade options to end films. Films can be saved in Iota

format with sound or Acorn Replay or as Ace films, if silent. In addition, if you possess the Screen Saver called MellowOut (which was on the November '94 Acorn User cover disc) you can even drop your Iota films directly onto it and Hey Presto!, you have made your own instant screen saver. I can wholeheartedly recommend this program for making top quality animations of your own, with good sound at a very reasonable cost. It will have a particular appeal to artists, and I have already had an enormous amount of fun with it. When the Guide is improved, with more detailed idiot-proof instructions, it will be very hard to beat. The latest news is

that Oak Solutions are so interested in this product that they intend to alter Genesis to accept the Iota sound films.

Overall

The Complete Animator is very good. It is easy to use with a clear (improving) manual and a video. It accepts Acorn sprites, DrawFiles and Artworks sprites and it has the immense benefit of including sound effects with sound editing too. It is by far the best product of the three that I tried.

The Complete Animator from Iota Software, costs £99 inclusive, or £95 through Archive. **A**

A Mouse in Holland

Christopher Jarman

Imagine you are a small child on your own in Holland. You can safely explore the countryside, a windmill, a canal in Amsterdam, go to an artist's studio and to an art gallery etc, etc. In the form of a mouse, you seem to have the power to do all these things. In addition, each time you touch an item around you, however small and apparently insignificant, something weird and funny happens, usually accompanied by very amusing sound effects.

4Mation's newest interactive fiction program provides all these experiences and more. It comes on three 800Kb discs and seems to contain almost as much information and events as a CD might be expected to have. It will run on any Acorn 32-bit computer with 2Mb of RAM. It is designed to introduce users to Holland in a very informal way and intended to appeal to all ages. It certainly appealed to this old reviewer and it clearly appeals to children in schools because 4,000 copies were ordered even before the program was released!

The program is the result of co-operation between Mike Matson and Hans Rijnen, a Dutch designer. It installs simply, and you are told when to change discs during the story, as necessary. It will install easily onto a hard disc which is, of course, more convenient. I like the fact that it is possible to select whatever font you wish from your own font store. This is important, as there are 3000 words of text to read. Many schools have strong views about which

forms of the alphabet they wish their pupils to use, so this is a useful facility. However, I do not wish to give the impression that this program is all about ploughing through text – quite the reverse in fact. The text is there and is appropriate and comes in short bursts. It would be quite possible to enjoy the program entirely as a non-reader. However, I suspect that children would be strongly motivated to read the text because of the amusing things happening in the frames!

The first thing that strikes you as you load up is the super music, arranged by Pete Saunders, which is a medley of two traditional Dutch tunes. It has a real Dutch sound and reminds you of the old hurdy gurdies which used to play in the streets of Amsterdam.

As well as simply exploring the country in your own time, there is a challenge to find five moles, five fruits and ten round Dutch cheeses hidden in the various frames. It is possible to save the program at the stage you have reached, so you can come back and find the rest another time.

I found the surprises such as birds appearing suddenly, a canal emptying down the plughole and so on, very imaginative and always unexpected. It would spoil it to mention too many of them! I think that the adult's reference book which comes with it is also a very good idea. Teachers cannot always spend the time to master a new program and yet they do need to know what it is about and what it

contains. This quick reference booklet should prove invaluable and ought to become a standard item with all educational applications.

A Mouse in Holland is priced at £29.50 +VAT (or £33 through Archive) with an enhanced version with twice the resolution for an extra £4.99 upgrade price. I ran the standard version on a Risc PC and was quite happy with it. Whether this sort of excel-

lent program is good value for money is something which schools will have to decide for themselves. As a printed book, it would probably cost around £8-£10, so you have to decide whether the interactive effects and animations are three times better than a book. Perhaps a school would have to buy four or five copies of the book as well, which then would make it worthwhile. **A**

Arctic - Terminal to CompuServe

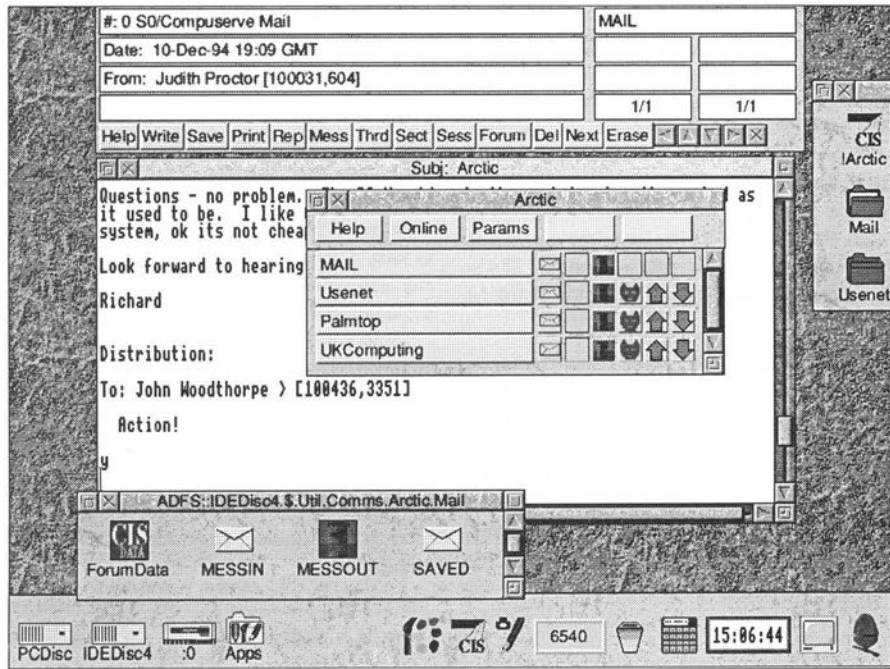
John Woodthorpe

A modem is both a way of bringing more interest and more frustration into your life. The interest comes from all the extra information and software that you can access, and the frustration lies in trying to set it up to work with your computer, software, cable and the service that you want to access. Any software that simplifies this is worth looking at, and if it also reduces your phone bill and on-line charges, then so much the better. Arctic is a program for automating access to CompuServe by Acorn computers (ARCHImedes Terminal Interface to

CompuServe), and claims to be able to help you make more effective use of on-line time.

CompuServe services

CompuServe claims to be the largest on-line computerised information service. It offers electronic mail facilities, special interest forums (mini bulletin boards devoted to specific topics), downloadable software, reference information and areas where you can ask questions of hardware and software suppliers. It also provides limited, but gradually expanding, Internet access.



There are around 2.4 million Compuserve members worldwide and they have access to nearly 2,000 products and services. A lot of the services are computer-based dealing with particular products, graphics, communications, etc, but many of them are of much wider interest. You can 'visit' the shopping mall, including its UK equivalent, play multi-user games, check out company profiles, worldwide news and weather. There are leisure sections on hobbies such as aquaria, model-making, health & fitness, photography, music, theatre, films, books and TV (including UK). Professional interest areas deal with topics such as medicine, aviation, law, safety and journalism, and the reference library allows you to search for information on almost anything. You can discuss astronomy, the assassination of JFK, dinosaurs, religion, and anything else you care to book airline flights, find a good restaurant, camping site, golf course or day out in just about any country.

Electronic mail

Email is one of those things that you don't realize how useful it is until you've tried it. Sending three typical messages will take less than a minute of on-line time, and will be delivered within minutes – even to Australia (although there are sometimes delays in getting through to Internet addresses). Sending large text files, JPEG pictures etc. is easy (although Internet will only take ASCII, so other files have to be converted by UUENCODE, and decoded at the receiving end). You won't get one of those simple IDs like PBeverley@arcade.demon.co.uk though. Rather it will be harder to remember like my 100436,3351, or the Internet version of 100436.3351@compuserve.com (note the comma changing to a full stop).

Unfortunately, there are some disadvantages, especially for users of Acorn machines. The main one is that the majority of the members and services are American, which means there is a strong PC and Mac bias. Secondly, you pay for just about everything, to the point where its detractors have labelled it 'CompuSpend'. Services are split into 'Basic', 'Extended', and 'Premium' and charged depending on the time of day and speed of modem:

Modem	Service	8am–7pm	Eves & w/e
300-2400	Basic	\$7.70/hr	Free
	Extended	\$12.50/hr	\$4.80/hr
9600-14400	Basic	\$7.70/hr	Free
	Extended	\$17.30/hr	\$9.60/hr

Premium services (mostly financial and business-related) carry an extra surcharge, and if you access via DialPlus, Mercury, or any other way than CompuServe's own network, you pay a further surcharge even after 7pm. Oh, and there's a monthly subscription of \$8.95, which includes sending and receiving about 60 Internet messages (up to three pages long) a month. Receiving mail from other members is free, but messages from Internet addresses (above the allowance) cost \$0.15 each – more if they are long. Complicated isn't it!

Basic services include email, some news and sports, the AA Days Out guide and so on. All the computer stuff (Internet included) is 'Extended', but there's an excellent Psion conference and software section, and a series of UK computing forums that are well worth a look. These contain an active Acorn group, which includes Richard Proctor, the author of !Arctic. He got fed-up with spending vast amounts of time (and money) on-line, and started to automate his access and now provides user support in the Acorn area.

The program

The author doesn't promise to reduce your bills, but !Arctic will allow your connect time to be more productive. An example of this is the mail section, where it obviously makes sense to compose your messages off-line and connect to the service only for as long as necessary to up-load them and down-load any waiting mail for reading off-line. !Arctic can do the same for Forum messages and software, allowing a session to be planned beforehand and then run automatically. It is Shareware, and can be downloaded from the Acorn software library in the UK Computing Forum, or earlier versions can be found on Arcade. Registration costs £15, which will disable the nagging message that tries to make you feel guilty enough to send off a cheque. It can also be registered on-line, when the cost is added to the monthly bill.

The documentation is a photocopied A5 booklet of some 113 pages, which you only get if you pay

another £5 when registering. Comprehensive is the best word for it, although a decent index would help in finding what you want.

In use

My main problem was related to one of my normal uses of CompuServe. As well as a PC at work, I use my Psion Series 3a to deal with email whilst out of the office. When !Arctic is first run, it asks for your name, CompuServe ID and password (it's encrypted so that other people cannot read it). The first time on-line, it goes through the terminal menus, setting its own series of defaults, some of which clash with those needed by ReadCIS (the Series 3a software) and !TaskANSI, which I sometimes use on my Risc PC, to the point where only gibberish is displayed! Apart from that, and one problem when it got stuck in the startup, operation was straightforward. I reported these to Richard Proctor (by email, courtesy of !Arctic, of course), and he promised to investigate them and ensure that the program did not set permanent defaults. It took me a short while to feel confident in using it, and I think there are a few things that could be improved, such as the mail editor. Effectively this is !Edit, with a few modifications (it only allows the system font, presumably to keep a fixed pitch to format the text). Writing and replying to mail is very simple and intuitive, but if you save a message intending to edit it later, things don't behave in the same way (this is currently being worked on, and will be greatly improved in a future version). The help text is not compatible with Acorn's !Help, using its own reader instead, but it is very comprehensive (if badly spelt in places!) – in fact, it is so comprehensive that you could happily manage without the manual 99% of the time.

Going on-line properly, the program downloaded the five messages waiting for me and logged off in less than a minute of on-line time. This allowed me to read them in a leisurely manner, compose my replies and write fresh messages. Another minute on-line saw them up-loaded cleanly and for the minimum of cost. An address book is maintained (with the author's address already loaded), and you can enter your own contacts manually or from messages received. Navigating forums is done in a similar way so that you can download the software catalogue and forum messages for browsing later.

After composing your replies and deciding on any downloads desired, !Arctic will go back on-line and carry out your instructions.

Internet access is not yet fully implemented in CompuServe, but !Arctic will be updated to take advantage of these changes. Currently, it can access USENET news groups, but is not yet able to cope with File Transfer Protocol (FTP), which has only just appeared on the system.

Conclusions

The more I use !Arctic, the more impressed I am with it and with Richard Proctor's customer support. We've corresponded by email a fair amount in my preparation of this review, and I find him (like most CompuServe members) helpful, friendly and knowledgeable.

I realise that this a piece of software with limited appeal, in that it is of no use unless you have a CompuServe subscription. If you do, then you should get a copy and register – it will save you a fortune in on-line charges and phone bills. If you are interested in email, a first-rate information service, a small but growing Acorn community, and Internet access, then it's worth investigating CompuServe. You can get some of these things in other places, but this is the only one I know of that gives you them all at once. It isn't the cheapest service available, but it is very professional, has plenty of capacity to avoid access problems (I hear some of the Internet providers are currently a bit overloaded), and has a friendly atmosphere. It is very easy to get to know people, just start off gently by observing what goes on in the forums, read the messages, download some software, and then try posting a message, asking for an answer to a problem, or suggesting a way round someone else's difficulties. No-one will mind if you make a few mistakes, as long as you behave sensibly, and you'll be amazed at how friendly and helpful people can be. CompuServe will give you one month free access to basic services, and can be contacted on 0800 289 458. Richard Proctor will provide a start-up pack with a Compuserve ID and on-line credit in return for an SAE and, of course, he can supply a copy of !Arctic too. He is at: Waveney Games, 28 Diprose Road, Corfe Mullen, Wimborne, Dorset, BH21 3QY. 

Duck Loses His Quack

Stuart Bell

This must be the most surreal title of all those which have headed my writing for Archive in the past five years. The software is a 'talking book' program by Sherston Software, the stars are Rosie and Jim of children's TV fame, and the story-line is simply that Duck has lost his quack!

Flying in the face of the idea that reviews should be made by those expert in that particular field, I offer this as someone totally new to pre-school software, and hence without too many preconceptions and expectations. Lucy, aged 3½, motivated the purchase and acted as co-tester.

Installation

First impressions of Duck loses his Quack (hereinafter called 'DlhQ') were not that good. The manual clearly described a package coming on one disc, but there were two in the box. Copying the first disc to a hard disc is straightforward, but there were no instructions about how to copy the contents of the second disc into a directory copied from the first disc. I had no problems, but what about the computer-phobic parent? The startup disc must always be loaded, to implement copy-protection, but most of the usual criticisms of that technique hardly apply to an application like DlhQ.

Starting up DlhQ gives a copyright screen telling us that Rosie and Jim are ©1994 Central Independent (sic) Television PLC – and this in an education application! There is a further hiatus if you start up the application in a less-than-ideal screen mode. DlhQ offers to pick an alternative mode – great – but then chooses mode 15 – less than great with VGA monitors and all those which display mode 15 in a letter-box form. There *may* be a clash with my VIDC enhancer, but I don't think so. It should be possible for it to choose mode 21 or mode 28 according to the mode in which it finds itself.

Duck finds his Quack!

Rosie and Jim are two 'ragdoll' characters. They have a duck who says 'woof' or 'twit-twoo', but not

'quack'. The player is led through a series of talking pages which relate the story of how Duck managed to quack again. For each page, there is a clearly displayed narrative, which is spoken as each word is highlighted. Large icons can be selected to turn pages, to cause action to take place – e.g. Rosie and Jim kissing – and to have the narrative repeated. Selecting individual words causes them to be 'spoken' and clicking on various animals within the picture causes their noises to be heard.



Other options allow the production of a log-file of words selected by the user and also the selection of single-tasking on ARM2-equipped machines. However, even when I turned the cache off on my ARM3 so as to simulate an ARM2, the single-user option – intended to maximise the speed of 'DlhQ' on ARM2 machines – was still greyed-out and not available. More worryingly, the application became very sluggish in 256-colour modes, and the voices became very slow and noisy. I can quite believe that 'DlhQ' will be fine on ARM 250-equipped machines like the A30x0 range, but the evidence suggests that owners of A310, A400 and A3000 computers without ARM3 upgrades should proceed with caution.

Conclusions

All this will be 'old hat' to infant school teachers, but may be of increasing interest to those with pre-school children. The Sherston Talking Books series provide an easy-to-use introduction to simple reading skills which is based on sound teaching techniques. (Lucy's godmother, who is a primary deputy-head, approves.) And Lucy certainly approves! She mastered the mouse and the use of the 'select' button (the keyboard isn't needed at all) within a few minutes. Notwithstanding the installation quibbles, and bearing in mind the issue of usability on an ARM2, at about £10, "Duck loses his Quack" is an excellent introduction to computer-assisted learning for the pre-school child. Now we know who'll want the Archimedes when Dad eventually saves up for his Risc PC! **A**

Dune 2 – The Battle for Arrakis

Andrew Rawnsley

Dune 2 on the PC-compatible is over two years old, and yet recent re-reviews gave it an average of over 85%. When you consider that this is comparing the game in the light of the recent so-called 'advances' in computer game technology, you can see why Dune 2's appearance on the Acorn platform is great news.

Developed by Eclipse, the team that produced Simon the Sorcerer for GamesWare, this title is being marketed by VTI. It maintains the fine attention to detail seen in the original version and, like Simon the Sorcerer, comes on eight floppies – thank goodness it can be installed onto a hard disc!

Background

The storyline behind Dune 2 is long and complex and, whilst the manual gives you a brief insight, I recommend familiarising yourself with the works of Frank Herbert (the Dune series) if you are to fully comprehend the background plots. Although much is not directly relevant, familiarity with the books gives the game an added glow and interest.

That being said, there are set sequences in the game that explain the events associated with the planet Arrakis (aka Dune). Basically, the planet is the only known source in the universe for a very valuable resource – Spice. This Spice is a vital commodity, as it is used to give knowledge to those who consume it but, more importantly, it allows the folding of the space-time continuum (I hate that phrase!) allowing travel across huge distances of time and space without so much as the blink of an eye.

Naturally, the Family (House) that controls Arrakis, and hence the Spice flow, has enormous influence, enough to take on the universal Emperor himself. This is where you come in. You must build up your House's lands on the planet, using troops and vehicles (amongst other things) to conquer the opposing Houses.

Of course, at the same time you must harvest Spice which brings in the much needed cash to fund your campaign, and build structures to help you in your quest.

Neither must you forget about Dune's most fearsome natural inhabitants – the Giant Sandworms...

Playing the game

You can choose to play one of three Houses, which effectively gives the game three skill levels. Two of the Houses appear in the original Dune book – the heroic Atreides and the vicious Harkonnen, but the third House, Ordos, was new to me. Each house has a standard set of artillery available plus certain House-specific weapons which become available as you progress.

The game is divided into missions, each with a specific objective, and set in a different territory. In order to achieve your objective, you will need to build power centres, Spice refineries, storage towers, radar installations and various troop training and vehicle construction centres. From there, you must defend your harvesting operation, whilst attempting to defeat the opposing troops.

However, just as you can build structures on the planet, so can the enemy, so don't be surprised if you come across huge installations in later missions.

Game interface

Dune 2 supports three different video modes: CGA – for users of lower resolution monitors; VGA – for a higher resolution display (perhaps the best for 17"+ screens); and Enhanced VGA – which gives much more solid colour areas by utilising the high res, but can look blocky on large monitors.

Whichever you choose to use, the screen is divided into four distinct regions. These are the main playing map, a scaled down overview of the entire battle zone, a statistics panel for the selected object and, across the top of the screen, a bar containing your current cash level with buttons to access your Mentat (strategy advisor) and game Options.

Fortunately for such a vast, in-depth game, you can save your current position to disc, and restore it as many times as you like. This means that you need not play the relatively simple early levels every time.

All the game's sprites are beautifully drawn and the illustrations of each of the available structures are

particularly impressive. Add to this digitized speech and realistic stereo sound effects (which can warn you of events off screen), and you'll see why Dune 2 is a treat for the senses.

Control of your units is achieved very simply. You click on the required object on the game map, and the status window gives you a selection of buttons allowing you to move, attack, retreat or guard. Once you've clicked on the button, you may need to specify some form of target, and then the unit dutifully follows orders. Although there may be specific buttons for certain units, this should give you an idea of how the engine works.

The disadvantage of this method is that, after selecting the attack option and sending lots of troops into a small battle area, you can sometimes accidentally click on one of your own units rather than one of the enemy's. Your unit will then merrily shoot its colleagues until one or other is destroyed. It is easy to be unaware of this in the heat of battle. Only when the enemy is dead do you realise that two or more of

your own units are fighting amongst themselves, wasting valuable armour.

Conclusions

Despite this small criticism of the control system (which I believe to be a fault in the original, not just the conversion), Dune 2 is a strategy game extraordinaire. It moves away from the typical 'anorak' image full of complex movement rules and heavy-handed combat, and provides something that's enjoyable to play for both the uninitiated and the expert. The combat blends into the development and harvesting side perfectly, without taking precedence over the rest of the game. For this reason, I find it hard to recommend the game to those who only enjoy arcade games. Never-the-less Dune 2 is very exciting, not least due to the intriguing story-lines which provide heightened atmosphere. For the rest of us, Dune 2 should be an essential purchase, with just the right balance of excitement and cerebral challenge. Dune 2 costs £34.99 from VTI or £33 through Archive. **A**

Goldilocks

Joe Gallagher

Goldilocks is a Genesis application jointly developed by the EdIT centre in Leeds and Oak Solutions. It is based on the familiar nursery tale of Goldilocks and the Three Bears and comes in the form of two discs (one for the application itself and one for support materials), a pack of photocopiable resource materials and an audio CD disc. The use of the CD disc is rather novel in that it provides both the narration of the story and commentary on the program as it is used. This is controlled by mouse from within the program. If you play the CD on an ordinary CD player, you also get half an hour's worth of French conversation as an added bonus at the end of the Goldilocks section.

The program didn't initially work on the Risc PC, but Oak very promptly supplied an updated version which didn't crash. However, I still wasn't able to get beyond the sequence where Goldilocks goes up the stairs to the bears' bedroom. I am pleased to report that it does work happily on earlier machines with a CD drive attached. Please note that you

actually need a CD drive in order to run the program, the audio CD is not an optional extra but is integral to the program.

The competition

Although the program is not designed as a talking book, this aspect is obviously an important feature. When compared to similar offerings such as Sherston's Naughty Stories series (costing one quarter of the price) the quality of the graphics do seem to be rather bland and begins to look very amateurish both in terms of graphics and animation when compared with interactive books on other platforms – such as the excellent *Just Grandma and Me* or *Arthur's Teacher Troubles* on the PC and Mac. This is a crying shame as Acorn machines provide such an excellent platform for multimedia applications. Developers do need to realise that, in this area, presentation is just as important as clever programming or original ideas.

I had rather mixed feelings about the help feature. On the one hand there is an information page which would be of little use to an average five year old and,

on the other hand, there is a very sensible feature which uses the audio CD. This simply tells the child to go and ask for help from an adult.

Activities

The program provides young children with several activities which are directed by the story-teller (who has a very soothing and reassuring voice). This is actually a very good way of getting young children to interact with the computer. The activities themselves are fairly basic ones encompassing matching and counting and are well supported by the accompanying notes on the CD sleeve.

There are also opportunities and kindly prompts to write up your observations in a notepad. Unfortunately, the only way to print these is by dumping out the window's contents to the printer complete with thick dark borders. Not only did this make considerable inroads into my bubblejet's ink supply but it also tied the computer up for quite a long

time. It would have been preferable to have an option to save the notes for later processing in a suitable text editor.

Conclusion

Overall, with the exception of the contribution made by the audio CD, the application didn't strike me as offering radically more than can be found on Acorn's own Horizon CD (and it must be remembered that these applications were produced by children and their teachers). I would have expected more from Goldilocks, certainly for the asking price of £44 (through NCS).

Many "edutainment" titles available for the PC are often quite superficial, if glossy, and are invariably American in origin, so this is an area in which Acorn machines could establish a considerable presence given their more than ample foothold in education already. However, to build on this, it does require quality applications and, sadly, Goldilocks doesn't quite come up to this level. **A**

BasicAOF

John Laski

This package from George K. Saliaris, a programmer in Greece, marketed by Oregan Software, would be of enormous help to a certain kind of programmer. I don't know how many of these there are; they may be only few, but I am sure that a substantial proportion of these do not realise that the facilities the package provides would be of use to them. A large part of this review will therefore be devoted to explaining why there is a need for what the package provides.

An aside

There are half a dozen programming examples illustrating well-chosen aspects of programming enabled by BasicAOF. They are packaged up as small applications and, unusually, these are also worthwhile diversions and utilities with very well-designed icons.

The problem context

Acorn provide two disjoint programming environments: Basic with embedded assembler and DDE with extensive tools for program development.

Basic provides an 'interpretive environment' in which the source program is lightly translated into a form that is then immediately interpreted by a crafty software program. This is simple and straightforward and has the advantage that you can have a very fast development cycle consisting of the two phases: edit the source text; run it (and see where it fails).

The disadvantages of the Basic environment are twofold. The program may run more slowly than if it were fully in machine code and you can't save your assembler program to be used elsewhere. More importantly, this means that you cannot put together chunks of code you have developed separately, other than by physically putting together all the separate source code chunks in a single source program.

Conversely, the Desktop Development Environment provides a language, Acorn Object Format, very close to machine code, and a linker which will take in a group of AOF files, plus whatever parts are needed of Acorn Library Format Files to produce machine code that can then be executed directly by the hardware. Thus, given compilers and assemblers that produce AOF, and providing all these can

produce code that satisfies APCS (the Acorn Procedure Call Standard), you can mix and match AOF files from any source language to produce, after linking, a single executable program.

The disadvantage of this DDE environment is the complexity of the edit-translate-link-run development cycle compared to the Basic cycle, particularly if you are developing a comparatively small chunk of program. The Make application, provided in DDE, alleviates this problem to some degree, particularly if you have to keep track of many separate sources.

The advantage of this environment is the possibility of developing a program by cutting the source up into manageable chunks. Also, Acorn provides a Desktop Debugging Tool which can be very helpful to the programmer.

What would be desirable would be to combine the advantages of the two environments, so that the programmer could move from one environment to the other according to what stage he had reached in his program development.

Acorn's part solution is to provide a special assembler that skips the AOF and linker stage. This can help but it fails to provide an equivalent of the surrounding high-level code given by the Basic environment, which you would want to use to write a 'testing harness' for your assembly code program.

BasicAOF's solution

BasicAOF offers another, better, solution. It consists of a module that provides seven additional SWIs for you to put in your Basic assembly code. One of these, BasicAOF_Save, put at the end of the assembler text, will, given suitable parameters, save an AOF version of your code in a suitable directory. Thus, having started in the Basic environment, you can move your code over to the Desktop Development Environment for special debugging or to link with program chunks written in other languages.

The other six SWIs enable you to tell the linker the various things it needs to know: your program's entry point, identifiers to export to other chunks, identifiers expected to be imported from other chunks, identifiers to be known to DDT, and where DDT should be switched on. Some Basic functions simplify access to some of the SWIs and there are a

couple of macros for remote loads and saves of identifiers in other chunks.

I presume that, in the absence of the BasicAOF module, executing a Basic program with BasicAOF SWIs in it will lead to complaint and, in its presence, they will effectively be no-ops. However, this is not documented.

Among the examples provided are !Unsqueeze and the utility DsasMBAOF which is very useful for those who want to go from target to source code.

AOF's module only needs about 19Kb, including working space, and the code needs the Shared CLibrary version 3.75.

Installation

The End User Licence is for one user on one machine. If you copy it immediately to your hard disc, it complains that it can only be run from a floppy. From the floppy, when you run for the first time, it asks you for your name and address. You can then copy it to your hard disc and it will now run freely from there. This setup is undocumented and, until I made a few experiments, I wrongly thought I should need to keep the floppy in the machine whenever I wanted to use !BasicAOF.

Documentation

A 28-page ring-bound A5 booklet contains very clear and well-organised information. Indeed I think I understood it thoroughly on the third reading. As well as the missing information mentioned above, and I should also have liked some discussion as to which directories on the hard disc I should have used for the various files and directories.

DDE needs

To use this package, you need to have, at least in part, Acorn's DDE. Specifically, you need Linker, probably Debugger and possibly Make/AMU. This presents some problems, since Acorn only supplies all the desktop tools bundled with their C compiler, or their own assembler. Perhaps this package will encourage Acorn to behave more helpfully and make DDE more easily available. **A**

(There is a freeware AOF/ALF linker called DRLink supplied with the GNU C/C++ compiler, but it should be available separately from PD libraries. The DDE is currently being replaced by C release 5 which includes C, C++ and Assembler. MH@NCS.)

Super Dustbin – Black Hole 2

Jochen Konietzko

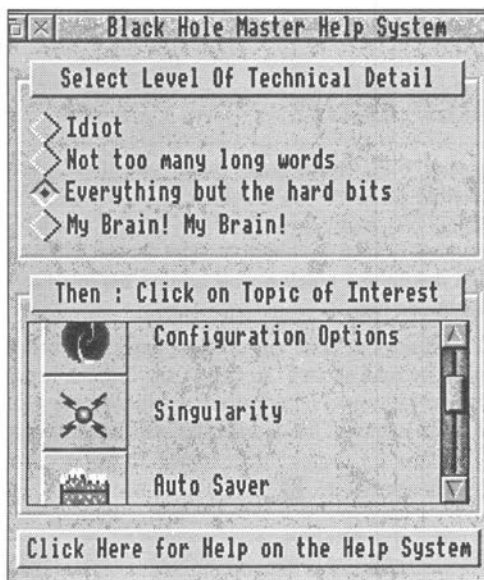
There are a large number of dustbin programs in the public domain but the most powerful one that I have found is BlackHole2, version 3.05 (02-Oct-94), written by Mark Greenwood. (Actually, it's a bit of what we, in Germany, call an "egg-laying woolly milk sow".) The program should be available through most PD sources. Black Hole needs RISC OS 3.10 or later and works best on a Risc PC.

Getting started

A double-click puts the usual icon on the iconbar – except that this one is animated. The program can then be configured to your exact taste. (In a 1152x864 screen mode, the Config window is about 1½ screens high!)

The help system

Every aspect of the program is described in the help system. Mark has a rather quaint sense of humour which is visible all through the documentation inside the application directory. (Just take a look at his Random Ramblings at the end of the Miscellaneous section of his Help application.)



The very detailed help is accessed through the Info window off the iconbar and, as the screenshot above shows, help is given in several levels of complexity.

The dustbin

All dustbin programs allow files to be stored in a directory and then wiped them later. BlackHole2 stores the files in a different subdirectory for every day, files can automatically be squashed and a time delay (in days) can be configured before the files are automatically deleted.

The 'singularity trap'

For people like me ("haste makes waste!") who tend to delete files accidentally, this feature alone justifies incorporating BlackHole2 in your boot sequence. If you have the singularity trap option switched on, whenever you click on 'Delete' in the relevant Filer submenu, BlackHole2 intercepts the call and stores the file in its bin directory instead.



The module killer

In one of the recent issues of Archive (8.3 p14), we were advised not to delete modules once they have been loaded but I do believe that there are situations when deleting a module can make perfect sense. An extreme example was that, having browsed through the Sillies directory on one of the RISC OS PDCDs, I found my RMA clogged with several dozen modules that those programs had left behind. BlackHole2 makes it easy to get rid of the little

nuisances. You can simply click on the items in a module list.

What is more, if you often load programs which leave behind lots of debris, you can put all the module names for each of those programs into a text file and they can then be deleted in one go without having to click your way through the Names list.

Other goodies

BlackHole2 offers a Search window, but there's not much to say about this feature – I think the Find option in RISC OS 3 is nearly as good.

Then there is a variation called, for some quirky reason, Ukulele, which allows you to group program names, so it will dig out, say, all the text editors on your hard disc.

There is an Auto Saver, which helps when you want to save a new file for the first time and only then realise you haven't opened a filer window. Auto Saver allows you to define default save paths for various filetypes.

A screen-saver offers all the usual settings, from the Windows-type star field to the melting desktop. (Although it can be configured very widely, prefer the fish tank from Out to Lunch.)

Tiny Dirs can be added without having to run !TinyDirs, and there is a menu listing all of the files

on the Run\$Path. All you have to do is to click on them and it will run them for you.

Problems

So far, I have found only one bit of real trouble. When I load SmartCD+ (the commercial version) with the singularity trap is switched on, the system is halted completely. However, once SmartCD+ is running, there is no further conflict between the two programs.

One minor complaint concerns the window with the list of module names to be killed. If you delete a module way down the list, the vertical scroll bar always jumps to the topmost position and so, for the next module, you have to drag it down again.

A very strange effect occurred once when I moved the application to a different directory and tried to run it from its new location. There was an error message, and when I had acknowledged it, the program vanished completely from the hard disc! I have not been able to duplicate this but still, it might be wiser to delete the Options file before you run the program from a new directory.

Conclusion

This program is a must for any serious Acorn computer user! **A**

(I have put it on this month's program disc. Ed.)

Heavy Mouse Balls

Gabriel Swords

What happens when your mouse loses its grip on life and slides around the mat like a jelly?

Well, you could wrap the ball in coarse sandpaper and hope that that will improve its friction. Or you could hold the mouse in one hand and use a finger from your other hand to move the ball around. Or you could try and squeeze an old squash ball into the mouse hole. Or you could go all the way and buy a completely new mouse. (*£22 through Archive!*)

On the other hand, you could do what I did, and replace your tired and worn out mouse ball with a new, heavy duty one from Oak Consultants. Apparently, they're four times heavier than standard

mouse balls, which might make you think you'd need to do some weight training to cope with them. But I can assure you there's no need for aerobic dancing or keep fit classes. Just slot the ball into your old mouse and watch it whiz around the mat like a mouse on fire.

I can't say I've done any of those impressive bench tests we read about – so I can't say that the heavy mouse ball works 1.7% faster than other mouse balls I could mention. But I really like mine, and at only £3, it's a lot cheaper than having to buy a completely new mouse. **A**

Logix - Electronics Simulator

Andy Watson

Logix is a suite of four programs from Silicon Vision which allows you to design and simulate logic circuits. It is fully RISC OS compliant and runs comfortably on a 1Mb machine as each application only needs to be loaded from disc as required and is only 64Kb in length.

All testing was done with version L1.10 on a A310 with 4Mb, RISC OS 3.1 and a hard disc. It was also briefly tested on an A4000 and Risc PC and no problems were encountered.

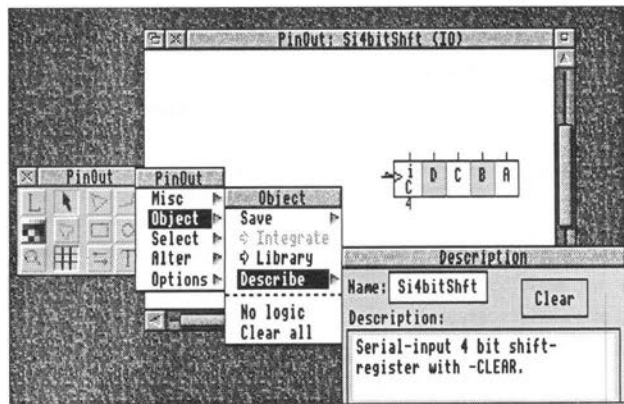
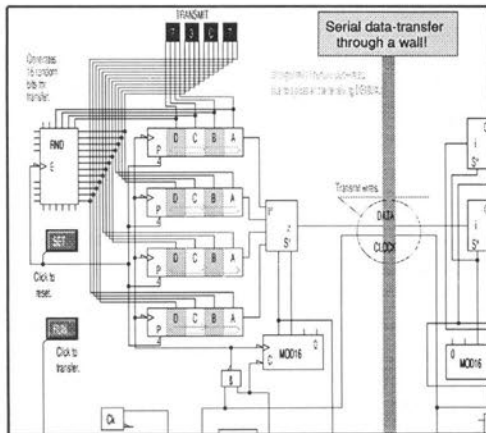
The program comes in a standard video box with an applications disc, library disc and 68 page A5 manual. Installing the programs on hard disc is easy, and configuring the programs is straightforward.

!Logix, the main program, provides a 'drawing board' and components for you to design circuits. !Pinout allows you to design casings for circuits when you are making custom chips. !Integrate integrates a circuit and its casing into a single component. !LIPLib is a library of ready made components.

This is not a program which will teach you about digital electronics. A knowledge of the field is required before you can make any use of Logix. The manual assumes that you understand the function of the various digital components and the basic principles of circuit design.

Circuits are designed using ready-made or custom-designed components including logic gates, complex chips, clocks, inputs and outputs. When the design has been completed, logic flow can be checked by examining the state of any input and output devices as well as oscilloscope readings from probes which can be placed in the circuit.

Logix is an educational tool which allows you to design and test quite complex circuits but which does not allow direct PCB design from the program. Remember, too, that only the logic of the circuit is simulated, not the physical characteristics. Most real circuits would also require analogue components such as capacitors to make them work.



!LIPLib

If a program like this is to be useful, there must be a reasonable range of ready made objects. While the facility to create one's own circuits is essential, the student should have the more commonly used chips available 'off the shelf'.

The library contains about eighty items, including various 7400 series chips, gates, flip flops, displays, key-pads and switches. Items are not accessed directly from the library

disc but must first be taken into the !Logix program. However, the program can be configured to start up with whichever library items you use most frequently. The library can, of course, be extended by amending existing components or creating new ones using !Pinout and !Integrate. Given the huge number of components in common use, it would be worthwhile if Silicon Vision were to provide further libraries of ready-made components. Those supplied, however, do provide a useful selection of common components.

The logic symbols used follow the British standard and not the ANSI symbols with which most students are likely to be familiar. While this is not a major problem, it could cause difficulties for students trying to replicate circuits they see in textbooks.

!Logix

This is the main program in the suite which is used to put together circuits from the available components. Objects from the library are placed on the design window and can be moved around easily. Groups of objects can be formed which move about together.

Wiring up the objects is achieved by clicking on one output and a straight line is drawn to the next clicked position. In any design, few of the connections between objects will be simple straight lines, so up to twelve intermediate connection points can be made. These intermediate nodes not only let you change the direction of the wire but provide points to which other wires can be connected. Moving an object will move any connecting wires, and the wiring patterns can be altered at any time. The paths can be re-routed by altering the positions of intermediate points or creating new connection points. A zoom facility makes complex wiring tasks easier.

One feature of the wiring process which is meant to be helpful is, in fact, very irritating. As the cursor moves about the design window, it jumps to the closest connector. It detaches itself if you move on without pressing <select> but it is most disconcerting watching the cursor attach itself to every connector it passes. The standard method of making the connection after a double-click would have been more intuitive.

While there is no direct printing option, circuits, oscilloscope output and the circuitry of chips can be saved as drawfiles and so can easily be incorporated into other programs for printing. The representation of the circuit, both on screen and in print, is very good and would not look out of place in a professional environment.

Simulation

When your design is complete, it can be tested. Various types of output device can be used to display the results as well as oscilloscope readings from logic probes. The status of all input and output lines are also shown with colour. It is possible to change from the normal multi-tasking mode of operation to a single task mode which speeds up operation. The simulation options are quite flexible, allowing you to choose what is continually updated and what is shown on the oscilloscope display.

!Pinout

!Pinout lets you design the chip casing to take a circuit. Using a wide range of drawing tools, you can design a new case from scratch or, more commonly, alter an existing casing to suit your needs. Casings can be saved to the library.

!Integrate

!Integrate allows you to take a logic circuit (stripped of switches, displays, etc) and place it into your casing. The program sizes the casing to fit the circuit. When the two have been integrated, you can wire up the connections to the appropriate pins. The chip can then be named and stored in the library for future use. A complete circuit can be used as part of another circuit, allowing quite complex chips to be created.

The competition

The only other program of this type that I know is OakLogic. This program is not as sophisticated as Logix but I do find it more intuitive to use. While the manual is half the length of the Logix manual, it does have a short tutorial section. Also in its favour are its use of ANSI symbols and its price, which is about £30 cheaper than Logix.

Overall

This program provides all the facilities required for simulating logic designs. However, for most teaching

purposes at school level, a program of this sophistication would not be necessary. Also, because any real designs which will be constructed will contain both digital and analogue components, this type of program is of limited use to schools.

The user interface could be tidied up. While there are nice touches like the tear off tool boxes which follow their associated windows around the desktop, some operations, particularly those involving wiring, are not very intuitive.

My most serious concern is the quality of the manual in a package designed for educational use.

The manual covers all the options which are available and generally explains them well enough. However, there is no tutorial section and most of the manual is devoted to explaining the various menu options. Having recently spent time working

through the tutorial sections of the excellent Schema2 manual, I was disappointed that there were no worked examples in the Logix manual to illustrate how to put the program to best use.

One complex circuit is provided as an example which can be examined. While this shows off what can be done with Logix, a series of simpler circuits might have been more instructive, particularly if they were linked to a tutorial.

In conclusion, although many potential users will not require the level of sophistication of this program and despite some annoying features of the user interface, Logix does provide all the facilities a user might want to design and test digital circuits.

Logix is available from Silicon Vision for £99.95 +VAT or £109 through Archive. A site licence costs £300 +VAT from Silicon Vision. **A**

Formula Two Thousand

Andrew Rawnsley

Skidding round a tight bend, the speedometer reading over two hundred mph, and with a slight nudge from the inside car, your championship dreams go spinning off into the void.

OK, so Murray Walker could have said it better, but since we're several years hence, he's been replaced by viewer-friendly commentators Bob and Ted!

FTT from TBA Software is a racing game with an interesting twist – it's set in Space with zero gravity. The track has a circular cross-section, and snakes its way through the stars with little thought for those trying to navigate it. The only forces working on your car are centrifugal and, believe me, on most bends you'll need them.

Installation

FTT comes on two discs which can be installed onto a hard disc although you'll need disc one to bypass the copy protection. However, the game can be run from floppies with the minimum of effort because once the game has loaded, you'll only need disc 2.

Running the game installs it on the iconbar. Clicking on this icon allows you to enter your name and a

password to jump to later courses. Once these details have been entered, a further icon installs itself on the iconbar and represents the main game. As many of these sub-icons as required can be installed, allowing the game to be played by multiple players, but it feels a little crude.

Introduction

From the minute the title screen springs into view, you can tell that FTT is going to show off the Acorn's ability to display 3D polygon-style graphics. Anyone who's played Archimedes Elite, Stunt Racer 2000 or Star Fighter 3000 will know what I mean if I say that this is one thing at which Acorn machines have consistently shown themselves to be excellent.

The engine behind FTT, TAG (another acronym!), handles 3D polygons beautifully and if we can believe what TBA say, then this is only a fraction of what the engine is capable of achieving. Suffice it to say that FTT is fast and smooth even on an ARM 2, although faster processors bring better frame rates and more polygons.

Much of the introduction attempts to show off the TAG engine before you're totally absorbed in a race, when you actually notice very little.

Gameplay

An FTT race is divided into two halves, the qualifying session and the actual race. In order to qualify, all you need to do is complete the course – not an easy task if you opt for one of the harder of the ten cars available. However, simply finishing a track won't give you a good grid position – you'll need to master apexing the corners correctly at high speed and gently applying the turbo at the right time.

Whilst this may sound easy, the game runs very fast, and the sense of motion is unbelievable. You'll find yourself leaning over to get on the inside of a trick bend, and leaning back to see more of the track as you shoot up a vertical loop!

Once you've qualified, the game goes from being mildly challenging to being downright difficult, so don't expect to complete a track straight off. This is a feat that requires winning the race, which in turn will require you to master one of the hard cars, since these are the ones having the speed and acceleration you need. Oh, and they also have proportionally less grip and cornering ability, making staying on the track almost impossible!?!

Graphics & sound

Sound and music are used liberally but when you're whizzing round the track, you haven't got time to listen as well!

Graphically, the game wouldn't stand up on other platforms, where you don't get a look in unless every object is fully texture-mapped. However, I feel this attitude is wrong, and FTT's speed and smoothness justifies my belief. You'd need a very high-end PC indeed to run a texture-mapped version of FTT with the degree of fluidity that is obtained even on a run-of-the-mill Acorn machine. Well done TBA!

Conclusions

FTT is hard and requires much practice before rewards are reaped, but the sense of achievement when you do win a race is immense. The game is very exciting and is wickedly addictive. What's more, it's fun – a rare quality amongst modern games!

FTT costs £24.95 from TBA or £24 through Archive. At that price, it represents great value for money. **A**

Picture Builder

Maureen Hobson

Picture Builder is not RISC OS compliant and was written for the Nimbus machine, and the manual reflects this, as does the way the software works. So the program is not as sophisticated as many Acorn ones and has an old fashioned look to it.

However, having said this, I found it easy to use, as did my 6 year old daughter. And there is a place for it in the infant classroom as it is a rare piece of specific Maths software.

It specifically looks at Shape and encourages the manipulation of shapes to build pictures, teaching shape recognition and associated vocabulary. This is particularly appropriate for Shape at Keystage 1. It is also good for teaching symmetry, as the shapes can be reflected horizontally and vertically.

After loading the disc, there is a screen with a toolbox across the top depicting shapes. Clicking on the icon will put the chosen shape on the screen. Then a

new toolbox appears at the top of the screen which enables the shape to be manipulated by clicking on the appropriate icon and, while this is awkward compared to selecting and dragging for Acorn users, you soon get the hang of it. And this is the good part, you can make your shape bigger or smaller, rotate it, make it longer or taller and flip the image too. The shapes can be moved about again by clicking on a select/move icon. A line can be drawn in a similar way but you end the line by pressing <escape>!

Colouring should be the last operation, as you cannot manipulate the shape any more without starting again! By pressing <f1> you get another toolbox for saving, printing, palette (background colour, etc) and quit. And this is when the fun started. We couldn't save any work on an A4000 – it crashed – but we could print it! It did save and print on A3000 RISC OS 2 and sometimes worked on RISC OS 3!

Finally, the children enjoyed using the program, especially those who were not particularly confident with computers. They were encouraged by this software to do more – so a proper conversion to

RISC OS would be welcome.

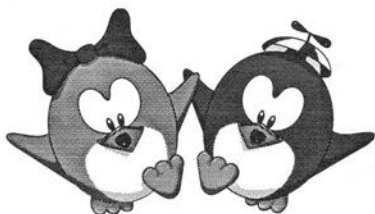
Picture Builder costs £20 +VAT from Newman Software Ltd and this includes full site and network licence. **A**

Sally & Wally

Andrew Rawnsley

It's rare that you find a computer game designed specifically for younger (under 10) players that doesn't contain cute TV characters, or subliminal messages to improve users' algebra! However, Sally and Wally, from Oregon Software Developments, is just such a game, and quite nice it is too. And no, I won't comment on the name!

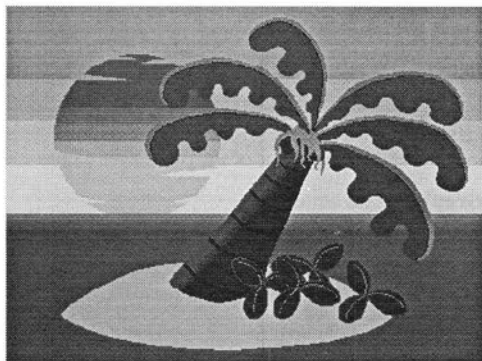
OK – it's got a suitably naff plot, and some soppy graphics, as the illustrations show. The difference is that it all seems to be in character with the product, rather than just being tacked on to boost appeal.



The storyline

Rather than carefully bypassing the plot, I feel that a short account is essential to this type of game. Apparently, Sally and Wally are two lovebirds

(I warned you...) who have returned from their honeymoon to find their dream home – a palm tree – overrun by all kinds of insects. Whether the two characters are actually married is never made clear, but as this is a politically correct game, I guess they are!



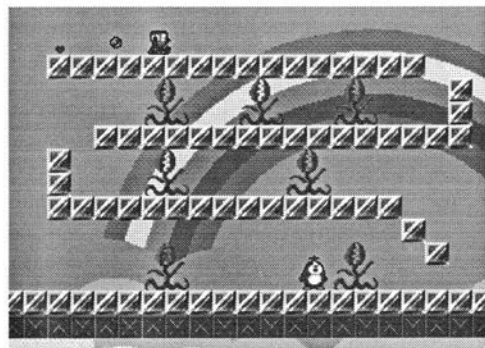
Needless to say, Sally is heartbroken, leaving Wally to comfort her and heroically go in and save the day. Who said the age of chivalry was over?

Installation

Sally and Wally comes on one floppy and can be played from floppy or hard drive. The latter just speeds up loading, as the original disc is required for copy protection purposes.

When loaded, the game installs on the iconbar, allowing the options to be set up from the safety of the desktop, before Wally begins his perilous quest.

Clicking on the icon causes the game to take over the whole screen, and you can choose your start level via passwords or by selecting a branch of the palm tree. This means that you can start on the harder levels without completing all the previous levels and without the need for a password. If you do have a password, you can jump into a level part way through a branch. All in all, a well thought out



Ice, a rainbow and plenty of mutant plants. All in a day's work for Wally.

system, particularly as the first couple of branches are very easy indeed. The branch system avoids the tedium which can easily set in if the game is found to be too boring. Each branch represents 20 levels.

Gameplay

Gameplay is simple – shoot the insects whilst leaping around the platforms of the level, and when you hit them, walk into them to get the points and a possible bonus. If you shoot in the right place, you can sometimes reveal hidden platforms and gates to bonus levels.

Perhaps the best aspect of the game is that it can be played by two players, with the second player taking the role of Sally who can come in and help her partner.

Each level is the size of a single screen, so there is no need for scrolling, and this means that the two player game can take place on one screen, (not a split one), increasing the enjoyment of the two player game.

Graphics and sound

Graphically, Sally and Wally is nothing special compared with products on other platforms, but native Acorn games tend to look grotty, so Sally and

Wally fares well in comparison with these. Certainly, the graphics are attractive and cute, but retain detail, which is surely all that is required?

Likewise with the sound and music. It's not groundbreaking, but then it doesn't need to be. The sound fits in well with the game's feel, and adds another dimension to the product. The music isn't too annoying, which is another plus.

Conclusions

I cannot really recommend Sally and Wally to people outside the recommended age range (except for parents, of course), but then that's hardly surprising. For younger players, the game is ideal – the only flaw being that some parents might object to a game which involves shooting mutant plants and insects.

There is a problem with the sound and music on Risc PCs with the Minnie 16-bit soundcard fitted, but the audio can easily be turned off.

All in all, Sally and Wally comes highly recommended for kids (and parents!) in the under 10 age range. Sally and Wally costs £24.95 from Oregon Software Developments or £24 through Archive. **A**

Playdays

Bob and Lisa Ames

Playdays is a suite of small programs or individual games which are designed to stimulate children with counting, spelling, shape recognition, reasoning and so on. Characters from the BBC TV programme Playdays are used to give visual interest; cheerful tunes and animations reward success.

The sections are all based on a choice from the alphabet. A number of games are then played (from a total of ten games), unless the letter X is chosen and then 3 special "X" games are offered.

These ten games are: Matching, Snap, Counting, What's Gone, Spelling, Moving Window, Dot to Dot, Sliding Block Puzzle, and Rhyme. The special X games are: Noughts and crosses, Treasure Island, Shapes and Colours.

There seems to be no way to choose which particular games are played; the games are offered at

random. At the end of a round of games, a performance table is offered, with scores so far this session. It also seems strange that a session's scores cannot be stored. The child has to set the play level each time the program is run.

Letters are entered by use of the mouse, not the keyboard. It is here that I find the first problem. I firmly believe that the keyboard should be used at all times. It is not going to go away, or be changed, so the sooner the child learns to use a "qwerty" keyboard, the better.

In fact, this was the only area Lisa found difficult. As an experiment I gave her the disc and suggested that she first use the program with minimal input from me. She achieved everything properly, that is except the entering of letters. No screen instructions appear to tell the child to use the mouse. (However, I must say that she has been using the Archimedes

from age 2 and seems, to a proud Dad, to be quite computer literate.)

There were times when Lisa wanted to speed through the music or truncate the cartoon of the "reward characters" and this is achieved by pressing <Select>. This jumps forward to the next activity and shortens the pause, music break, etc.

According to the mini manual, Playdays is simple enough for children to play by themselves. I would agree. Lisa seemed to romp through the program at first sight with ease. I asked her to use level one to start with (the age range is 3-8 and she is now 7) and the program adjusted the level of difficulty automatically when it found that she got things right most of the time. I feel this is a very valuable feature.

Less valuable, however, is the need to have the master disc in the machine the first time the program is run in a session. This is because of copy protection but it causes no end of headaches. I like to give Lisa free run of "her" programs, she has her own directory on the hard disc, but Playdays will not

run directly from hard disc alone. I wish software writers would get this copy protection right! A proper and complete hard disc installation must be provided because key discs will eventually get lost or damaged by small people. A friend who has two small children has removed the integral floppy disc drive from the children's machine (to avoid importation of unknown software) but he couldn't use this type of copy-protected software.

We have had the program three months now (Sorry Paul!!) and although Lisa has played it from end to end in one mammoth sitting (choosing all letters and progressing through all difficulty levels) she returns to it quite frequently. I would say this is quite indicative of the scope, flexibility and appeal of the program. Having 13 games available compares very favourably with other educational games we have reviewed – such as the Fun School packages that each have six.

Conclusion: well worth the asking price, despite the niggles – £25.99 from Skillware/Gamesware or £25 through Archive. 

Lenses and Light

Charles Hill

This package is produced by Anglia Television and it contains files to be used with KeyPlus and KeyCalc which need to be purchased separately. It costs £22 +VAT but it can be freely copied and used within the purchasing establishment.

The package includes two 800Kb discs with eight KeyPlus datafiles and 23 KeyCalc spreadsheets. In addition, there is a 24 page A4 booklet with general information, photocopyable pupil fact sheets and investigations and teachers' notes. The investigations are designed to accompany other theoretical and practical work away from the computer so it is not necessary for all pupils to have access to a computer at the same time. It seems sensible to review the package topic by topic.

Snapshot

This set of KeyCalc files and a KeyPlus datafile examines the relationship between shutter speed and aperture and aperture and depth of field and the

effects they have on the photograph taken. The ability of KeyCalc to store sprites is used effectively although a 256 colour screen mode needs to be used to do justice to the photographs. The photographs show the results of correct or incorrect camera settings, e.g. over and under exposed, and lack of depth of field. The datafile supplements the spreadsheet on aperture and depth of field. The photographs can be saved as sprite files and/or printed if required. There is also a datafile giving data on various camera lenses

Eyetest

This set of spreadsheets examines the effects of short and long sightedness and their correction with appropriate lenses. There are four spreadsheets for fictitious customers and the investigator is in the role of an optician trying to find the correct prescription of lenses to correct blurred vision for either near view or far view. Again the KeyCalc facility to store and view pictures is utilised.

Shadows

This is a spreadsheet which examines the relationship between the height of an object, the angle at which it is illuminated and the length of the resultant shadow. The application of this effect to theatrical situations is encouraged and reference to the Scientific Eye TV programme, 'Seeing the Light', is also made.

Polarise

This is a spreadsheet comparing the effect of material and angle of rotation on the percentage transmission of polarised light by polarising filters.

Reflection

This is a series of four spreadsheets which look at reflection in a plane mirror (angles of incidence and reflection); multiple reflections in two plane mirrors at a variable angle to each other; reflections at a curved surface, the curvature of which can be changed, and the effects of the object distance on image distance, type and magnification; and the effects of refractive index and angle of incidence on total internal reflection, the ideas are extended further by a fifth spreadsheet on prisms. A KeyPlus datafile gives further information on different sorts of mirrors and the images they produce.

Refraction

Some aspects of refraction are covered in total internal reflection above, but there are also these spreadsheet files which examine refraction at an air/substance interface and also at the interface between two other different substances. Another file looks at the horizontal and vertical image shift produced by refraction, e.g. the false impression of depth in water. The spreadsheet files are supported by a datafile giving refractive index and other properties of various substances.

Lenses

Spreadsheet files enable investigations into the relationships between focal length, object distance, image distance, size and type of image to be made for both concave and convex lenses. These files are supported by two datafiles giving information about the images produced and the power of a selection of lenses. There are further spreadsheet files which investigate the lens systems in microscopes and telescopes and also a magnifying lens.

Additional datafiles

There are two additional datafiles which are only briefly referred to in the guide. The first, !Lamp provides information on different types of lamp (tungsten, fluorescent, etc) and their efficiency, colour etc. The second, !Spectrum contains information about the sources, frequency and uses of different radiation types within the electromagnetic spectrum and sound waves.

Comments

First a warning. It is intended that these files should be used by altering data in cells and examining the effect on other cells. It would be very easy to overwrite the original files and, before exploring the spreadsheets, I ensured they were locked. This is important in a school situation where some form of write protection on the original files would be essential.

The accompanying booklet claims that the files are suitable for Science Key Stage 3 and above. With the outcomes of the Dearing review not yet finalised, I can only refer to the draft proposals, and much of the material on these discs is very much marginal to the proposals on light and waves, although electromagnetic spectrum and total internal reflection are present in KS 4. In fact, some of the numerical treatment given in the spreadsheets has now even disappeared from some A level syllabuses!

The material does encourage practical-based activity away from the computer and also everyday applications of the topic under investigation and, as such, they provide a more motivating approach to this aspect of physics. Some of the material might also be of use to students who are following photography courses. The datafiles are, justifiably, quite small and are often better accessed in tabular display mode. They do seem a bit trivial when viewed against the power of KeyPlus and I was disappointed that as the frequency field was given as a range in the !Spectrum file – an opportunity for graphical display may have been lost. The pupil instructions were, on the whole, clear and easy to follow although there was an error in the polarise spreadsheet (the wrong letter was given in a slot reference). I felt that the teacher instructions might have been more detailed in places – it is expected that the teacher will run through the files beforehand but some

exemplar material might have been included to make this task a little easier. Less experienced computer users would perhaps welcome a reference to selecting the correct screen mode before viewing the photographs.

Conclusions

I feel that the strength of the package lies in its imaginative use of KeyCalc files and although the material is very reasonably priced, the additional

cost of KeyCalc to run the files may discourage the use of these files if teachers feel that the material is marginal to what the National Curriculum requires them to cover. The KeyPlus files are intended to offer additional support to the KeyCalc files and would hardly justify purchasing the package for these datafiles alone. As a science teacher, I do welcome the attempt to introduce some relevant spreadsheet work into science. 

Photobase – Landscapes

Paul Hooper

This is the first of a series of CDs from Longman using the Photobase program as a way of indexing a large number of photos. It comes in the normal jewel case along with a little booklet to explain the system. It was tested on an A5000 with a Cumana CD drive.

Getting started

The root directory gives you not only Photobase but also Resource15 and Resource28. The last two are different mode dependent versions of the 2200 photographs on the disc. Clicking on Resource 28 brings up the Resource menu, shown below.



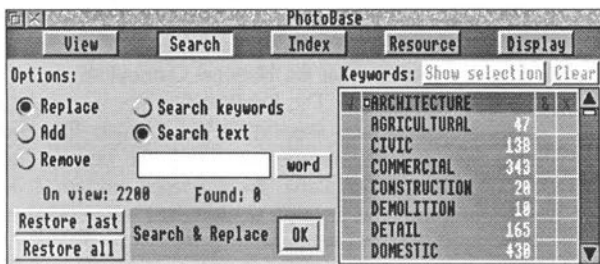
The five buttons along the top operate on the current selection. View produces a window with ten thumbnail photos which you can save out as a sprite by double-clicking on the thumbnail. You can browse through your selection using the scroll bar if you have selected more than ten photos. Menu over this window allows you to select all the photos or to clear the selection and also create a 'film' strip of photos. Clicking on 'film' brings up a film strip below the main view window. It is then a simple matter to drag the photos that you want into the film strip window. Once you have created your film strip, you then need to click on 'Display'.

The Display button shows your film strip along the top, and from here you can select how long the photo will be displayed and how the film strip is run. You have the alternatives of running from start to finish or in a continuous loop or a yo-yo effect. You can save the film either as a full film with all the images for use on another machine or as a mini-film which only saves the thumbnails and then uses them to access the CD to run the film. When you play the film, it takes over the screen but you can click <select> which will return you to the desktop. While your film is running you can get a description by clicking <menu>.

Search and Index

Index brings up an individual thumbnail image from the current selection. This has a small descriptive text and is indexed via a keyword system. So a picture of a sunset over Addis Ababa has the following keywords: Urban Environment, Africa, Ethiopia, Dawn/Sunset and Light/Shade. On the CD-ROM, of course, you cannot alter this but if you take a copy of these images to hard disc, all the keywords plus the description can be altered.

The most powerful feature of Photobase is the ability to search through 2200 photos using either the keyword system or a particular search string or word in the descriptive text. The search menu is shown below and is a model of clarity. Clicking on the keywords on the right will select the photos that have been indexed with that particular keyword. The rest of the menu is fairly self-explanatory and selecting keyword searches produces almost instant results.



The photos

If I describe this as 'Coffee Table' software, I think you will get some idea of the quality of the photos. The photos themselves are first class, just like those you would expect in a coffee table book, yet just like that style of book. I would question how useful the images are on this disc. Of what possible educational use is 'Sunset over Addis Ababa'? The manual suggests that these images can be used in DTP work, but unless you have a first class printer, I should forget it.

If you are doing a topic on a particular subject, you could search through the images and use Photobase to set up a scrolling display, or even import them into a multimedia application on the subject, but quite how else a teacher would use these images is beyond me.

Conclusions

The Photobase application is good, but the CD is let down by the pictures. If a much more narrow subject had been chosen, such as a single country or a single curriculum subject and we were then presented with 2,000 images, it would be much more worthwhile. As it is, it would be extremely hard to justify the £54 price tag, but many primary schools have been given this CD as part of the NCET Primary Initiative and I would like to know how they will use this program. Any suggestions would be welcome. I have a feeling that it will be hardly used.

Landscapes costs £49 +VAT from Longman Logotron or £55 through Archive. **A**

CD-Circle

Paul Hooper

CD bonanza?

The last few months have seen a large increase in the number of CD titles on the Acorn range, and the advent of the internal CD drive on the Risc PC has set the final seal of approval on this storage medium. Yet the number of CDs on the Acorn range is still very low when you compare it with the huge range that is available for the PC or Mac. In a small catalogue given away with a PC magazine last week I saw over 700 different CDs listed. So what we need is some way of accessing this huge range of material. Yes I know there are PC cards and the Risc PC will be able to run most of them when the new chip appears, but the cost...

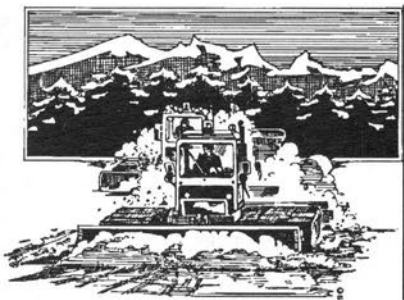
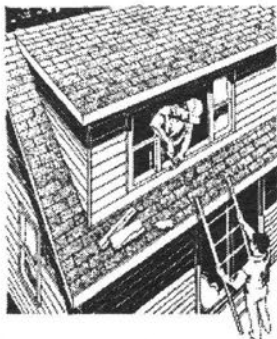
CD-Circle

Desktop Laminations have set up a user group called CD-Circle with the aim of bringing you all the information and a catalogue of the latest CDs that are available for the Acorn range. There is a series of



subscription plans which are too complex to explain here, so I suggest you ring them for details but the base catalogue is £12.50 for six bi-monthly floppy discs.

The first floppy catalogue has just appeared and lists over 180 CD's that will run on Acorn machines. Now many of these CDs are listed at the manufacturer's retail price. These vary from as low as £30 up to £150, but the great advantage is that many of the CDs are discounted to members of the CD-



Circle. To give you some idea, I have just ordered 10 of the Corel Draw CDs and two others and my total bill was £92.50, which works out at just under £8 per CD – cheaper than some floppy-based programs.

As well as providing this service, Desktop Laminations are also marketing two software fixes which will enable you to read PC CDs and, at a later date, they aim to add Mac CDs. This requires neither PC card nor even an emulator and will run native on any Acorn machine fitted with a CD drive. The fixes are provided free with the PC CDs that you order but they are specific to the CD so you will not be able to run other PC CDs with the software.

Darkroom

The first software fix is Darkroom, which enables you to read foreign picture formats and batch file them with thumbnails. The review copy was supplied with a CD called ClipMaster Pro, which contains 5001 monochrome TIFF images suitable for DTP. With over a thousand borders on this one disc, you can find a border for every occasion. The manual is the sort I like, it is one page of A5 covered in plastic. Also supplied is the PC manual which has all 5001 images printed out in thumbnail form.

Darkroom is easy to use – just load as normal, click on the icon and a thumbnail window appears. Open up the CD directory and click on the TIFF file and it will load a thumbnail into the window. Once you have got the images you want to look at, you can set up a slide show of the images or just save out the batch of thumbnails. If you decide just to examine

one or two, a double click on the thumbnail will bring up the full-size picture and <menu> then gives you the opportunity to save the picture as a sprite.

Just to give you some idea of the quality of the images, I have taken four at random from the disc and scaled them down using ChangeFSI to a quarter of their original size and I hope that Paul can either include them in the text or on the monthly disc.

Multimedia Viewer

The second application is designed as a front end for PC CDs. The review copy was supplied with the Wizard CD which contains a whole number of 16m colour photos and WAV samples. These can be set up as a scrolling display in the corner of a Risc PC window or even played on an older machine. I have yet to make it crash and it certainly does provide a good display. As you buy more CDs, the viewers can be merged with each other so that you have one viewer for all your PC CDs.

Conclusion

This is certainly an interesting development and the phrase 'watch this space' springs to mind. The trouble is that when the 486 card is ready for the Risc PC, will this software fix be necessary? For those with pre-Risc PC machines, the limit of 256 colours doesn't show off the graphics as they would appear on a PC. The idea of a catalogue of purely CD material is a good idea, as it is becoming very difficult to keep up with the amount of material available. **A**

Flyprint 2.50

Dave Wilcox

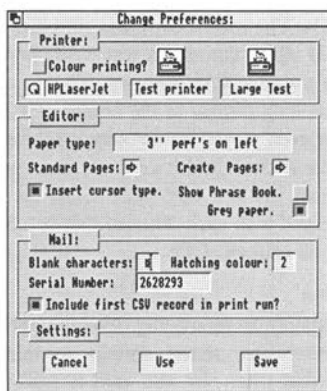
Flyprint 2.50 is a utility from Dixon & Dixon, designed for the easy production of tickets, memos, adverts and the like, and is aimed at the small business, school or club user. The application is provided on one double density floppy disc which contains the application, System, Sysmerge, Scrap, Examples folder and a couple of read me intro files. Also included in this package is a 20-page A5 manual, which is concise and well thought out.

For those with a hard disc, installation is a simple matter of dragging to your desired destination directory, and updating your system directory if necessary using Sysmerge.

The program

A double click on the application installs it onto the iconbar. A click on the icon runs the application, greeting you with the main menu.

The first requirement is to use the preferences option to configure the program for your use.



The first option is for your printer type – the software is designed for use with Epson compatible printers and, at present, there are three inbuilt printer definition files, HP LaserJet, Acorn JP150 and Epson LQ850.

Alongside this are test print icons which allow you to run a test print of one ticket or a page of tickets to confirm the settings are correct. This should there-

fore preferably be performed at the conclusion of the configuration exercise.

As well as 'Standard pages', i.e. normal A4 cut sheet or fanfold paper, you can use 'Flyprint pages' which are special fanfold sheets with perforations along one side, for the production of 'return half ticket' type flyers. (This paper is available from Dixon & Dixon.) You can design your own page if the installed ones are not to your specification.

There are two merge facilities written into this software, the first of which allows the use of a phrase book (very much like a clipboard in other applications). Frequently used comments or phrases are kept in this note book and simply dragged into the editing window as required. The second is a mail-merge facility which imports CSV data (Comma Separated Variables). The main part of this section is the ability to set a serial number for your flyers which will increment by one for each copy printed. Once set, preferences can be saved or just used for the current session.

Loading and saving are done as in most RISC OS applications except that there is a load option which displays a 'Save' type window which requires you to enter the full pathname of the file to be loaded – strange!

The Print option is self explanatory, and can be configured for as many copies as required. However, having said that the program is designed for output to Epson compatibles, the printer driver descriptions are saved within the program as CSV files and are fairly easy to edit to match your own printer with the aid of the printer manuals.

The edit window consists of the main editable 'paper' and a toolbar. The paper shows the position of perforations, if applicable, as a thin black vertical line. The top row of the toolbar is for choice of text style – the printer's inbuilt styles, i.e. italics, bold, underline, sub-script and super-script. The bottom row has icons controlling justification and text colour – for those with colour printers. With the tools described, it only remains to place the cursor and enter your text in the colour and style required.

Conclusion

Dixon & Dixon market a piece of software called 'Milkman', which is a computerised Dairy Management system. The first versions of Flyprint were designed to be used by owners of 'Milkman' for their easy output of data and circulars and, as such, I feel it probably did a good job.

Dixon & Dixon have now aimed at a larger market, but I feel that the facilities of this package are too restrictive for present day use; mainly due to it not using the full advantage and versatility of the Acorn computer. There are now thousands of fonts and

gigabytes of graphics available but none of these can be used by this package.

Gripes aside, I have to admit that I have used this package to produce a run of raffle tickets, solely due to the fact that the serial numbers can be put in by the program – an ideal application for this program. It must also be said that the programming is good, as I had no crashes, and all output printed out without error.

All-in-all, the idea is excellent but the application a little lacking and the price (£34 +VAT from Dixon & Dixon) is a bit steep, all things considered. **A**

Network Acorn

Fred Grieve

As its title suggests, this new publication focuses on the trials and tribulations of networking Acorn computers. It covers all current models as well as older models no longer in production such as the A300 and A400 series and the ubiquitous A3000. Network Acorn is an A4-sized soft cover book running to some 150 pages and is supplied with an 800Kb disc of utilities.

Geoff Preston is a teacher with years of experience of running and managing Acorn networks and has written this book for anyone who is considering networking Acorn computers. Undoubtedly, this book is targeted at mainly education users although Acorn computers and their associated networks are also found outside the education sector.

The author imparts his knowledge in a style which is neither condescending nor assumes too much from the reader. The result is a text which I found most informative and very easy to read.

A lot of ground is covered in this book: everything from designing and planning a network layout, different network topologies, DIY installation, setting up network software, using a network, managing the network and hints and tips for network managers.

Although still used in lots of establishments, Econet is not covered as it is no longer a viable networking solution to the demands of 32-bit technology. However, it is mentioned and there are frequent

references to software packages which are Econet compatible. The book concentrates on Ethernet networks. Peer to peer networking in the form of Acorn's Access is covered as well as fileserver/client systems.

Hardware

The author provides lots of essential information such as how many client stations can be installed along a length of network cable and how much hard disc storage space will be needed on the fileserver. He covers everything from the relatively simple task of installing network expansion cards in machines to the slightly more demanding installation of networking cables. He wisely points out that, if the network design is large, the job is better left to the professionals. This is not a cop-out but a piece of good advice: installing a network is not beyond the abilities of most computer users who have any DIY ability, but very few have the specialised equipment necessary to test the installation should it not function correctly!

The mysteries of repeaters, hubs, gateways and bridges are revealed and alternatives to copper conductors such as fibre-optics, infra-red and microwaves are also mentioned.

Network backing storage is covered very fully, with alternatives to the more traditional Winchester hard drive such as Syquest drives, magneto-optical drives, DAT and CD-ROM all mentioned. Backing up data is an important part of the network manager's job and this too is covered very fully.

Software

As a network manager for the past 7 years, this section immediately caught my eye. There are two broad categories of network software: applications which are designed for client use and utilities to facilitate network management.

In the former category, most software companies will supply the stand-alone version of the software with the site licence. However, there are special versions of some applications which are "network aware" and two such applications come in for special mention.

There are quite a few network manager utility programs around and it is nice to see these mentioned along with a short description of what each offers.

I was delighted to see two things which have a unique place on networked systems, Teletext and Email, also covered in some detail.

Software from the Public Domain is considered for network use and some advice is offered on software to avoid!

The accompanying disc contains suggested exports directory structures for Acorn's Level 4 server software and the AUN application accelerator as well as several useful utilities.

The book finishes with an excellent glossary of terminology and an appendix of useful names and addresses.

Conclusion

Although the book is directed towards those who will actually network Acorn computers or manage them, I am sure that students of communications systems and networks will also find it extremely useful.

Geoff Preston has done a terrific job in drawing together lots of information on the current state of play with regard to Acorn networks. He backs this up with his own experiences to provide a very worthwhile and readable book. Ironically, the only drawback with Network Acorn comes about because of the comprehensive coverage of network software provided therein. Obviously this is a constantly-changing area which will therefore tend to make the book out-of-date quite quickly unless Northwest SEMERC intend to reprint it frequently.

My only negative comment about Network Acorn concerns its production in that the black and white illustrations, some of which are screen shots, are far too dark and look no better than photocopies.

Network Acorn (ISBN 1-899008-04-7) by Geoff Preston costs £12 from Northwest Semerc. 

Langdale – A Geographical Resource

Nick Harris

The Langdale Suite from Creative Curriculum Software is a set of resources designed to cover both IT Capability and various Geographical Attainment Targets at Key Stage 2 and 3. Some of the resources can be accessed using multi-disc sets – "The River Project" and "Stickle Tarn" or the complete suite can be accessed using the CD-ROM, "Langdale". All of these multimedia applications were created using Genup Lite and explore Langdale and the surrounding area in the Lake District. The CD-ROM also has a comprehensive set of worksheets and printed instructions which are also held in 'Draw' format on a single floppy included in the package.

The disc-based resources need to be registered before running and ideally need to be installed on a hard disc using the !Install program, although it could be run from the Master and the four other floppies. !Install also keeps a count of copies made by a multi user or for use on a Network and has provision for deinstalling, all of which is explained clearly in the documentation. These resources are identical with those on the CD-ROM but do not come with work sheets or additional data except that the disc-based resources are designed for mode 15 only whereas the CD-ROM will also display in mode 28. Purchasers of the disc-based resources can upgrade to the CD-ROM less the costs already incurred

I am running the CD on a RISC OS 3.1 A310 with 4Mb RAM, a Taxan 770+ and a SCSI-interfaced Cumana CD drive. I have spent some time trying to get the best from the setup but, although in mode 28 the pictorial data fills the screen, the full screen does not greatly enhance the resolution of the photographs etc, and working in mode 15 gives a better picture for Visual analysis. On the above setup, in mode 28, the screen flashes on and off whilst disc activity takes place. A similar comment can be made with respect to the Risc PC – the disc-based application gives you the choice of whether you wish to work in mode 15 or to continue in the present mode. On the Risc PC, mode 15 is a letter box mode – perhaps the application could be made to check for a Risc PC as well as other modes?

The CD has “Windows” capability and installed quite happily on our School Library’s Multimedia PC. However, it did not run in full colour at the first time of asking and this still requires investigation though it is more likely to be a problem with the Colour Card than with the CD.

On the Archimedes, opening the \$ directory gives you an Acorn directory inside which you are presented with several options including the text file, FirstOfAll, which explains how to get started and gives the following overview of the various sections that the CD contains, plus some additional information.

The applications: These are in the directory called ‘Apps’. Each of the applications is in its own directory. Open this directory and run the application as usual by double clicking on it.

You can get a full description of the contents of the whole package by running the application ‘!Langdale’ which serves as a general introduction. Go through every section carefully.

The resources: These are in the directory called ‘Resources’ and you can get an overview of the resources by running the application ‘!Guide’ from the applications directory. The resources themselves can be seen by loading them. All the materials used in the applications are also in the resources. But there is a great deal more besides.

Copyright: Due to copyright issues, purchasers must follow the restrictions below. You are NOT allowed to copy or print the applications. You are NOT allowed to

copy or print the scanned Ordnance Survey maps, except under the following limited circumstances. It is often the case that departments of Local Authorities purchase rights to use Ordnance Survey maps for other purposes, such as town planning. This purchase generally covers some uses of these scanned maps as well. Local Education Authority schools should check. All the other resources can be copied.

Devising programmes of work for students: You will see that the resources are very extensive. No attempt has been made to exploit all of them to the full. However, some useful activities and investigations are available to get students started and indicate ways in which the package can be used to support programmes of work.

The actual directories in Apps are: !Langdale, which explains how to use the package and gives additional contextual information. !Guide, a summary of the resources available on the CD, some of which are not used in the applications. !River, which covers the whole valley down to Eltwater and can be used to investigate both river profiles and flood risks. !Geology, general information about the rocks in the valley and their formation. !Land use, covers the whole valley and can be used to investigate how man has used the valley up the present day. !Blisco, a walk from the Old Dungeon Gill car park to the summit of Pike o’ Blisco. !Bowfell, a walk from the New Dungeon Gill car park to the summit of Bowfell. !Stickle, a walk from the New Dungeon Gill car park to the Stickle Tarn. These “walks” complement the material used in the other Applications. There is also a directory containing the software for running a Concept Keyboard which can be used for the applications.

The following suggestions are those given by C C Software on the CD.

The worksheets for most of the activities and investigations are provided on paper and as files for direct use or printing out.

Scene setting: Some activities which would allow students to familiarise themselves with the content and structure of the package would be appropriate. It is suggested that as a minimum this would include – work through the applications ‘!Langdale’ and ‘!Guide’ – look up the area in whatever atlases and other maps were available – ideally, having access to either the OS Pathfinder maps or the OS Landranger map of the valley and surrounding area –

locate and look at the aerial photographs in the resources and the maps in the resources and identify some of the features – either draw a simple sketch map of the area or print the sketch map provided – write a brief general description of the valley.

Map work: Three sets of activities relating to map work are provided in the directory 'Mapwork'; four activities on contours, one on grid references and one on map symbols. They are intended to be done on computers but could be modified to be completed on paper.

The Langdale Explorer: This activity, using the three simulated walks, should be done as a preliminary to the four main investigations. The answers are in this directory in the file 'Explorans'. The following investigations are not specific about how students should present their results. It should be made clear that effective use of the resources, by using printed selections, or DTP packages, or even multimedia, will add value to assessment.

River profile: This is investigation 1. Students should make appropriate use of the application !River as well as referring back to the simulated walks.

Flood risk: This is investigation 2. Students should make appropriate use of the application !River as well as referring back to the simulated walks.

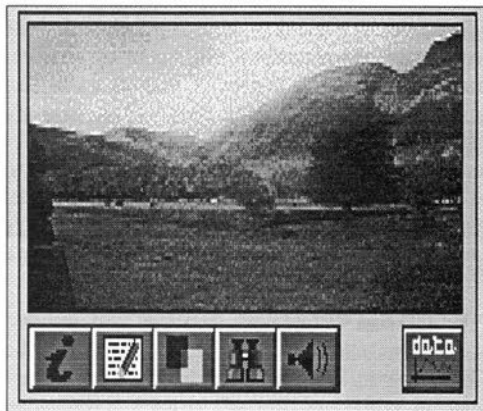
Land forms: This is investigation 3. Students should be encouraged to start to make use of the photographs in the resources. One way to do this is for the student to identify a grid reference and direction which might help illustrate a land form, and search through the photos for a suitable photograph.

Land use: This is investigation 4. Students should make appropriate use of the application !Landuse as well as any other applications. The worksheet 'Timeshare' provides an alternative approach to this topic through a detailed study of an aspect of land use.

Mickleden: This investigation provides a further approach to land use. The additional requirement is that students must also identify and use appropriate photographic evidence from the resources.

Further use of the resources; general activities: While use of the resources has been an additional part of the investigations above, there are many opportunities for work centred only on the resources themselves. In particular, the resources provide opportunity for work which develops IT capability, such as: a multimedia or desk top published report of a survey, over time, of a particular

location. The New Dungeon Gill car park, for example, would be worth investigation. A range of numerical studies using the CSV data in conjunction with both databases and spreadsheets. Details of possible approaches are given with the data.



Some Questions from a Worksheet.

- Two points for the word which describes the shape of the boulders in the stream bed on photo B16.
- Two points for the grid reference of the old sheepfold.
- Which direction are you walking on map 2? One point.
- Two points for finding the name given to material deposited by a glacier.
- Identify the two types of slope on Pavey Ark. Four points.
- Ten points for finding out the name given to the glacial landform now occupied by Stickle Tarn.

!Langdale presents an overall picture of the entire suite clearly and explains how the Genup Lite applications can be used including the iconbars (see illustration) and search/supersearch. The other applications use maps and "hotspots" to take the user along a route using photographs, (see illustration) and by using buttons which reveal additional information, textual data, overlays/labels, closeups, sound (only on a few samples) and data which could be in the form of transects, rainfall data, reports, or cross sections, etc.

The basic ideas behind this CD-ROM are very sound; to provide a resource to allow students the opportunity to handle IT whilst studying a glaciated upland river and its surrounding catchment area and, as such, it contains a wealth of pictorial and factual data which will provide a real contrast for pupils across the country where field studies would be restricted to lowland rivers like those found near us in Norfolk.

However, I find that there are several points about the package which disappoint me. The CD-ROM should really have exploited its capabilities more thoroughly with, say, some Replay clips of the becks and rivers in flow to give a more rounded experience and not just the few desultory sound clips that it has at present.

I have read a previous review of this package in *Archimedes World* where the Genup authoring system was criticized for its idiosyncrasies and I tend to agree. Although there is a reverse mouse button function so that old windows are closed automatically when clicking <adjust> and reopened again on <select>, it is quite possible to find that you have shut all the windows and you have to start from the beginning again. The confusing element is that in order to keep photographs open whilst you are reading text, you have to use the opposite button to that which you started with and then you forget which you used. It would be more helpful to have customised buttons which open windows without closing source pages in those circumstances where the text or data windows directly relate to a specific photograph or page in the way most of the applications in "Langdale" do.

There are inconsistencies in the user interface as there appear to be small differences between each application which have appeared as they have been developed and which could be improved. For example in !River there are no compass guides on the maps as in other applications.

Another small problem which I hope will be sorted out on later editions of the CD is that, in some of the applications, some of the photographs do not correspond with the given information i.e. the bearings and/or location of the hotspot on the map do not match with the photograph, which can be confusing. In Land Use, the location list for photographs have

no bearings, which differs from the "walks" applications. It is also disappointing to note that there are many photographs which are in portrait orientation when a panoramic "landscape" view would have been far more appropriate to recording the Landscape. Although the application actually allows you to look more closely at sections of the views, those sections are no more than enlargements of the original with all the problems of low resolution, poor colour and general degradation attendant on that technique, and not an entirely new photograph taken with a telephoto lens or taken from much closer to the area of special interest. Sometimes, the choice and/or presentation of a close up does little to really add to the user's understanding.

One significant comment passed by the Geography department was surprising! They felt that the textual information was too easily available and too detailed! With the result that the pupils would not need to use their own knowledge plus their observational and analytical powers to understand how and why an upland river will differ from those in their own locality. In fact, there is no need to work out the answers to questions as the answers have already been provided!

This is a CD-ROM that has real potential but I feel that it still needs work to make the expense more justifiable to a Geography department. It requires a more consistent and perhaps more intuitive interface for presenting hot spots, bearings and Photographs. The quality of the Photographs should be considered more carefully, especially in respect of the closeups where both quality and subject detail are very important. (The resolution of the photographs on the CD could have been better, they are not photo CD quality but just plain sprites.) There might be some form of control or customisation that denies or at least reduces the ease of access to the text areas containing answers. As a river is a dynamic feature, it would be extremely useful to have more sound clips and, more importantly, Replay clips showing the river from, say, full spate to drought conditions at various locations for water in a river. I appreciate that the disc-based resources might become too unwieldy with too many !Replay clips but sound samples would be possible. I look forward to an upgraded/improved edition. **A**

Look! Hear! Talking Topics for Infants

Richard Rymarz

A couple of years ago, Sherston Software developed the idea of 'Talking Books' for children. Simply, this involved developing software, particularly for younger children, that included clear speech, animation and the ability for the child to interact with the on-screen presentation. There are now two volumes of 'Naughty Stories' which have been very successful and have made the transition to CD-ROM. Then came the 'Oxford Reading Tree' series which is still being developed. Now a third set of 'Talking Books' has been released. Written by Simon and Adam Hosler, they are very simple information books based around topics that frequently crop up at Key Stage 1 (5 - 7 year olds) in most schools.

The 'Talking Book'

For those who have not seen any of Sherston's previous offerings, Talking Books allow children to see on screen images, animate them, read and/or listen to the appropriate text or listen to it if they cannot read it themselves and, finally, highlight and hear certain words they may not understand.

Look! Hear! Talking Topics

This suite of programs is an attempt at a new approach to Key Stage 1 reference books by making the information accessible through the computer. Volume 1 consists of six topics often and widely used by most schools: The Body, Land Transport, Dinosaurs, Pets, Homes and The Seashore. Each topic comes on two discs, all of which can be transferred to hard disc. However, they can easily be run from floppy disc - the program even tells the children when to change to disc 2.

Each topic follows the same format. Disc 1 contains !Fonts, !System and two Edit files, one consisting of release notes and the other providing information for RISC OS 2 users. Clicking on !TheBody, for example, installs the program on the iconbar. An options menu is available where the volume can be adjusted and whether highlighting of text is required.

Running the program produces a title page with two icons at the bottom right hand corner: one an ear and the other an arrow. Clicking on the ear results in

the title being spoken. Clicking on the arrow brings up an index. This is attractively laid out and easy to understand with the particular part of the body named and pictured. Floppy disc users will notice that disc 2 chapters are greyed out. The ear icon is on the left of each chapter, and there is an arrow on the right. Click on the ear and the chapter heading is read out. Clicking on the arrow results in a new page with a large picture of, for instance, an eye. The ear icon is again present and the text can be listened to. Clicking another icon below the ear results in some animation. Clicking on the arrow calls another page where more information is available. An open book icon returns the child to the index page. This is all very easy and children will have no difficulty finding their way around.

Each topic contains between eight and ten chapters, each two pages long. This may not seem much but compares favourably with many early learning books. The language is simple and appropriate, the pictures attractive and the animations add an extra dimension - in fact, children love them. The topics have been chosen carefully and must be used at some time during the first three years in school.

Documentation

A comprehensive user guide is included which is up to the high standard we have come to expect from Sherston. Also included is a set of double-sided work cards which are designed to help the teacher/parent make the most of the topics.

Home use

Whilst I have stressed the use of Talking Topics at school, they could equally be used at home. However, to get the best from them, parents should be warned that listening and talking to their children is vital if the best is to be gleaned from these programs.

The complete Volume One of the Look! Hear! Talking Topics is available from Sherston for £59.75 +VAT (£67 through Archive) or £11.95 +VAT for individual topics from Sherston. When it comes to parting with money, the parent/teacher has to judge between the value of information books and

computer versions. My view is that there is a definite place for both with the added use of sound and animation providing enough substance to make the

purchase of these type of programs worthwhile. Sherston must be on to a winner – recommended. **A**

Clicker

Hutch Curry

Clicker is designed to be a very flexible utility program providing an alternative mouse-operated input to co-operating RISC OS applications. As such, it is aimed primarily at the very young child and at those individuals with special educational needs. There is also a special version of Clicker called Switch Clicker designed to work with switches for those with physical handicap. It would be interesting to try it, particularly with some of my brain-injured clients.

Clicker works as a multi-level on-screen overlay keyboard in a manner not too dissimilar to external overlay keyboards such as the Concept Keyboard. Each overlay – which is called a 'grid' in Clicker – consists of a number of cells. Each cell can contain either a text string such as a letter, a word or phrase, an editing or function key action command (key-press) or a link to another grid. Clicking on a cell then either outputs the text or command string to an application that owns the caret (typically a text editor or word processor) or requests Clicker to close the current grid and open another one. The contents of any cell and a number of properties of each grid can be easily altered to suit the individual's needs. The programmer has clearly intended that teachers or individual users should be easily able to design systems tailored for specific purposes and/or specific students.

One of the other features of Clicker is the ability to link software speech (or sampled sounds) to any of the cells. The software speech is generated by Superior Software's 'Speech!' system. If software speech is being used, the computer attempts to speak the word as best it can. If sampled sounds are being used, any sample can be linked to the cell.

Clicker is priced at £35.00 plus VAT which includes a 5-machine site licence. For your money, you get an attractive

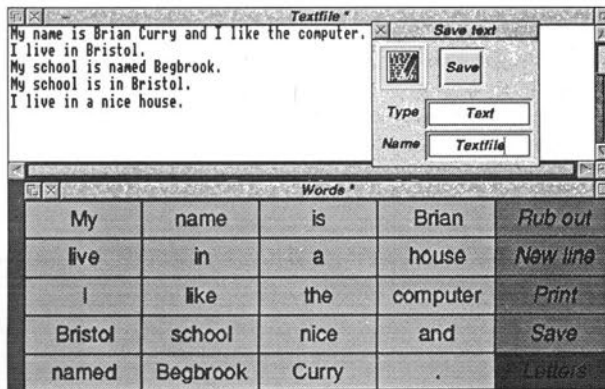
plastic wallet containing the A5 manual and two discs – one containing the program and the other containing examples.

In use

For the review, I ran Clicker on both a 12Mb A540 and a 4Mb A5000. Both machines were fitted with multisync monitors, hard drives and RISC OS 3.1. Neither machine had any trouble with Clicker.

Installation of Clicker was simple and straightforward – involving only the copying of the supplied discs to other floppies or to a hard disc. The software ran fine from the hard disc with no requirement for a key disc. The manual supplied with Clicker is very good in both content and layout.

To get to grips with Clicker, I read the manual and then tried all the supplied examples with Edit, StrongEd and Publisher to get a feel for the way it worked. In general, the operation of Clicker was easy and intuitive (see below for some areas of improvement) as long as the receiving application had the text caret. If, in the middle of text entry, you go off and do something else on the computer that grabs the caret, when you go back to Clicker, you might find your text going to another application or just going nowhere.



After playing about for a bit, I started to customise the grids and this worked exactly as the manual described and was easy and fun to do. With one of my grids, I went and got my 4-year old son to have a go at entering some words to make a sentence. This is something he is now doing at school with words on pieces of card. The figures illustrate the results of his efforts. He thought Clicker was great and much more fun than using the cards. He now asks if we can go on the computer to make some sentences, so I have constructed a number of grids for him using the same words as he has been given by the teacher. I think that perhaps this is the best testament to the value of the program. Interestingly, he wasn't too impressed with the computer speech and wanted it switched off.

Niggles and complaints

Although my son was totally enthusiastic, I have a number of minor criticisms and suggestions. First of all, there is a dictionary supplied that works off a 'letters' grid that allows you to open another grid containing an assortment of words beginning with the letter you clicked on. This should have been one of the more useful and impressive features but was somewhat disappointing in the shortage of supplied words and the apparent inability of Clicker to deal with having more than one grid open at a time. I found it extremely annoying that the 'letters' grid was automatically closed when you clicked on one of the letters. This was followed by an appreciable delay while the selected word grid opened. To go back to the selection of words beginning with a different letter, you have to click on the 'letters' cell. This closed the 'word' grid and there was another delay before the 'letters' grid reappeared.

Another niggle was that cells which were not defined produced an output of unwanted spaces into the text. I discovered that the reason for this is that there is a flag that the user can set for automatically putting a space after any cell content. This is a local flag affecting only one cell and it was therefore quite tedious to edit all the blank cells to ensure that the flag was not set. I am sure it would have been better if blank cells actually did nothing.

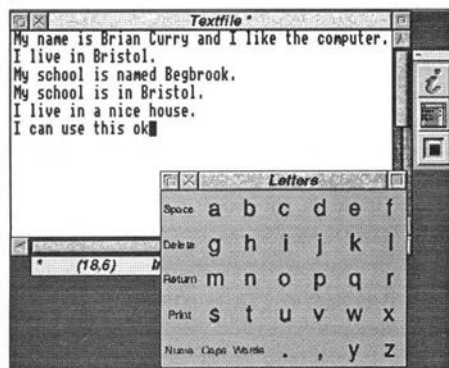
In trying to add my own words to the dictionary from a file – which should have somewhat nullified

my complaint about the few words supplied – I ran across a couple of problems. The first was that RAM transfer – the ability to save from one application to another directly – was not implemented and I had to save my selection of words to a disc file and then load the disc file. I then found that upon dragging the file to the grid, I was given the choice of loading into all of the cells or only into the blank ones. When I chose to load only into the blank cells, the program nonetheless wrote over some of the existing cell contents.

And a few more... The file length seems to be fixed at 29Kb regardless of the file contents. You can't open a grid by dragging it onto the iconbar icon, although you can open one by dragging it onto an already open grid. The computer generated speech is acceptable – but only just. The sampled sounds can obviously be of a much higher quality, depending on the sample. However, these samples are loaded only when the cell is activated, so there is a perceptible delay between action and sound. I presume that the programmer implemented the samples in this fashion to minimise memory requirements. The samples are also required to be in the same directory as the grids for reasons that seemingly have to do with making the programmer's life easier.

Conclusions

I was quite impressed with Clicker despite the long list of small niggles. I would obviously be more impressed if a future version addressed these issues. The price of £35 (plus VAT) seems very reasonable – particularly for a 5 machine site licence. I have to say again how pleased I was to see how Clicker



motivated my young boy to spend literally hours making sentences. This must be one of the best yardsticks to judge the value of educational software. **A**

Clicker is produced by Crick Computing who have actually now done a Clicker Plus. As soon as we get hold of a copy for review, we'll pass it on to Hutch. Ed.

VTI Printer Port Sampler

Andrew Rawnsley

VTI (aka Vertical Twist) have produced a variety of audio products over the years, from Tracker and the Econet Port Midi Sampler pack in the earlier days, to the latest VTX2000 Midi music. The Printer Port Sampler falls midway between the two periods and has recently undergone a major overhaul, bringing it into the limelight.

Compatibility

Before I go on, I should say something about the rather non-standard input method for the sampler. I was more than a little dubious about the merits of plugging a sampler into my printer port – after all, I had an Impression dongle installed and a printer lead. Splitting the port into two provided no difficulty – splitter boxes are relatively cheap these days. However, would I have problems with my notorious Impression dongle? Surprisingly, everything worked fine and I'm typing this into Publisher, with the splitter controlling connection to the printer or sampler.

A little history

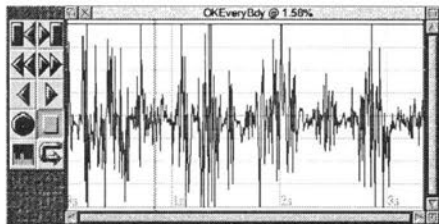
In the past, samplers have generally been designed to sample from one of two sources: an external sound source via a LINE socket; or a microphone. The hardware was designed as a compromise for these two very different types of input. This often resulted in poor quality samples, and complicated processing was needed to obtain anything useful.

However, the VTI sampler is different. Its dongle-like interface has two inputs – one for each of the above sources. Also, the package comes complete with a substantial microphone to get you started immediately.

Technicalities

When looking at a sampler, it is hard to escape from the technical details of the product. After all, the quality of the results is dependent on the speci-

cations of the hardware. The sampler is only 8-bit and supports sampling rates of up to 35kHz, so don't expect 16-bit CD quality. However for the most part, this is not an inconvenience – all standard machines are only capable of playing 8-bit samples anyway!



Software support – Sonor

Perhaps the backbone of any sampling system is the software. This will determine how easy it is to get input into the machine and how far you can go when touching up your creation.

The standard for sample manipulation software was originally set by Computer Concepts' AudioWorks package, but you won't need to splash out on that for use with this sampler. Apart from its rather *too* colourful appearance, it's hard to criticise the bundled software – !Sonor.

By selecting an appropriate driver for the Printer Port Sampler in the choices dialogue box, the package will handle all your sampling, processing and sample conversion needs. When producing a sample with which to work, you can either load an old sample, or create a new one via the sampler. Multiple samples can be open at once, allowing merging, averaging and comparison of the samples.

By choosing an area with which to work, you can apply any of the following effects: Amplify, Shift, Reverse, Fade, Echo, Silence and Filter.

Re-sampling and adding of frequencies is also possible. Most of the effects leads to a dialogue box

allowing adjustment of the level of the effect required.

Of particular note is the Filter effect, which allows you to build a filter envelope to apply to the sample. You can also use one of the built in ones. Silence, for example, is also very useful, as it can be employed for reducing background noise which might be noticeable between the words of a sentence. You can also zoom in on your sample, and adjust the amplitude of sections to give a little more colour.

The import and export options of the software are also worthy of note. You can load or save as Logarithmic (Tracker), Armadeus, Module, MS .wav (16 or 8-bit) or AudioWorks samples. This makes Sonor ideal for people requiring cross-platform compatibility.

Finally, once you're happy with your sample, you can play it back at any frequency via a keyboard window.

Software support – Talking Pages Junior

This is the latest addition to the pack. Talking Pages is a simple multimedia package, allowing the linking of pages of sound and graphics. Sprites can be loaded onto the page and, by defining areas on the image, samples can be linked to mouse click on certain areas.

Initially, the educational impact of supplying such a package with the sampler hit me, perhaps because of my own experience working in the Special Needs market. However, having played with the system myself, I think that VTI have hit upon a truly useful idea, making the package ideal for all kinds of presentation work.

Although the full version of Talking Pages is not yet available, the software supplied for review worked well and, if used properly, can yield good results.

Conclusions

Whilst not being a professional sampler, the Printer Port Sampler performs very well, particularly when you consider that the whole system retails at £44 +VAT! Indeed, Sonor and Talking Pages are worth a good proportion of that, and when you include the sampler *and* the microphone...

Whilst the sampler could fit easily into almost any environment, what struck me most were its possibilities in the educational and leisure fields. The system appears very stable, making it ideal for use in the classroom, whilst the range of output options makes it ideal for producing samples for games and project work.

If you're looking for a high end 16-bit, 44+ kHz sampler, this isn't it, but for everyone else, the package is sensibly priced, and superb value for money. Well done VTI! **A**

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